PACIFIC SALMON COMMISSION
JOINT CHINOOK TECHNICAL COMMITTEE

2011 EXPLOITATION RATE ANALYSIS AND MODEL CALIBRATION

REPORT TCCHINOOK (12)-2

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Table of Contents

Table of Contents iii
List of Tables iv
List of Figures vi
List of Appendices vii
Executive Summary 1
1 Introduction 6
1.1 Methods 6
2 Exploitation Rate Assessment (through fishery year 2010) 8
2.1 Brood Year Exploitation Rates (Appendix E) 8
2.2 Brood Year Survival Rates and Indices (Appendix D) 12
2.3 Stock Distribution Patterns (Appendix C) 13
2.4 Fishery Indices (Appendix J) 14
2.5 ISBM Indices 16
2.6 Assumptions of the CWT ERA Analyses 18
2.7 Results of ERA (Appendix C, D and E): 20
3 Model calibration and Output 21
3.1 Model Calibration 21
3.1.1 Calibration Data 21
3.1.2 Calibration Procedures 25
3.2 Model Calibration Evaluation 27
3.2.1 SPFI developed for NBC and WCVI AABM Fisheries 29
3.3 AABM Abundance Indices and Associated Catches 32
3.3.1 Model estimates of stock composition of the AABM fishery abundances, 1979-2011 35
3.4 Overages and Underages 37
3.4.1 AABM Fisheries 37
3.5 ISBM Indices by Stock 38
3.5.1 CWT-based Indices in 2009 43
3.5.2 Predicted ISBM Indices for 2011 44
3.6 General Forecast Methods 44
3.6.1 Agency Stock Forecast Used In The Model 45
4 Evaluation of mark-selective fisheries 55
4.1 Catch in MSFs 55
4.2 Size of MSFs 60
4.3 Impact of MSFs on unmarked Chinook salmon 61
5 Progress Report on Improvements to the Coastwide CWT Program 66
5.1 Canadian Projects Undertaken in Fiscal Year 2010 66
5.2 U.S. Projects Undertaken in Fiscal Year 2010 72
5.3 U.S. Projects Undertaken in Fiscal Year 2011 76
References Cited 79
Appendices 80

List of Tables

Table 1-1. Abundance Indices for 1999 to 2011 for the SEAK, NBC, and WCVI AABM fisheries (from CLB 1106). 1

Table 1-2. Preseason allowable catches for 1999 to 2011, and postseason allowable catches and observed catches for 1999 to 2010, for AABM fisheries. 2

Table 1-3. Deviations in numbers of Chinook salmon and percentages from allowable catches derived from the postseason AI (Table 1-2) for Pacific Salmon Treaty AABM fisheries in 1999 to 2010. 3

Table 1-4. Canadian 2009 ISBM indices based on CWT and the 2011 indices predicted from the PSC Chinook Model. 4

Table 1-5. U.S. 2009 ISBM indices based on CWT and the 2011 indices predicted from the PSC Chinook Model. 5

Table 2-1. CWT exploitation rate indicator stocks, their location, run type, and smolt age. 9

Table 2-2. The 40 CWT exploitation rate indicator stocks used in the exploitation rate analysis and the data derived from them during the base period years 1979–1982. ..10

Table 2-3. Parameter definitions for all equations except those used for Stratified Proportional Fishery Index (SPFI) in SEAK. 12

Table 2-4. Parameter descriptions for equations used for the SPFI. 16

Table 2-5. Fisheries included in the ISBM index by nation. 17

Table 3-1. Months when final return estimates are available for the previous year and preseason forecasts of abundance are available for the next fishing year from agencies. 22

Table 3-2. Methods used to forecast the abundance of stocks in the PSC Chinook Model. Externally provided forecast type codes are S = sibling; R = return rate; C = model internally estimated projection. 24

Table 3-3. Abundance indices (AI) for 1999 to 2011 for the AABM troll fisheries (from CLB 1106). 33

Table 3-4. Observed catches and postseason allowable catches for 1999 to 2010, and preseason allowable catches for 1999 to 2011, for AABM fisheries. 34

Table 3-5. Deviations in numbers of Chinook salmon and percentages from catch targets derived from the first postseason AI (Table 3-3) for Pacific Salmon Treaty AABM fisheries in 1999 to 2010. 38

Table 3-6. Canadian 2009 ISBM indices based on 2009 and 2011 PSC Chinook Model, 2011 CWT analysis and the 2011 indices predicted from the 2011 PSC Chinook Model. 40

Table 3-7. U.S. 2009 ISBM indices based on 2009 and 2011 PSC Chinook Model, 2011 CWT analysis and the 2011 indices predicted from the 2011 PSC Chinook Model. 42

Table 3-8. Preseason forecasts and postseason estimates for PSC model stocks, 1999-2010. ..46

Table 4-1. Mark selective fisheries occurring from 2003-2010 (√). See SFEC (2009) for more detailed information on MSF proposals and fisheries. 56

Table 4-2. Retained or landed catch and total encounters (landed+released) and total mortalities (landed+release mortalities) by size and mark category in MSFs for Puget Sound and Juan de Fuca marine sport fisheries (PSN, PSO, JDF) for 2003-2009 and the Washington-Oregon ocean sport fishery in 2010. 59

Table 4-3. MSFs in Puget Sound Terminal Sport for Chinook salmon 2003-2009. Catches of marked fish are reported where available for the calendar year; either from PSMFC catch sample database (a), preliminary catch record card estimates (b) or

creel survey estimates (c). Fishery and years that were sampled are indicated by an (s). 60
Table 4-4. Estimated landed catch of tagged and marked PSC Chinook Indicator Stocks in BC, Washington and Oregon in all net, troll and sport fisheries for catch years 2003-2009 and % of total tagged and marked catch that was landed in MSFs. 62
Table 4-5. Results for hypothesis test (H_0: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant. 64
Table 5-1. Canadian CWT Improvement Projects approved for FY2011. 72
Table 5-2. U.S. CWT Improvement Projects approved for FY2011. 77
Table 5-3. Key to issues in PSC Technical Report 25. 78

List of Figures

Figure 3-1. Estimated CWT based SPFI (through 2009) and model landed catch fishery indices (through 2009) for the SEAK troll fishery 28

Figure 3-2. Estimated CWT based SPFI (through 2009) and model total mortality fishery indices (through 2009) for the SEAK troll fishery. 29

Figure 3-3. Estimated CWT ROM (FI), SPFI (through 2009) and model landed catch fishery indices (through 2009) for the NBC troll fishery. 30

Figure 3-4. Estimated CWT ROM (FI), SPFI (through 2009) and model total mortality fishery indices (through 2009) for the NBC troll fishery. 30

Figure 3-5. Estimated CWT ROM (FI), SPFI (through 2009) and model landed catch fishery indices (through 2009) for the WCVI troll fishery. 31

Figure 3-6. Estimated CWT ROM (FI), SPFI (through 2009) and model total mortality fishery indices (through 2009) for the WCVI troll fishery. 32

Figure 3-7. Annual stock composition of the abundance indices for the SEAK troll fishery for major model stocks from CLB 1106. 35

Figure 3-8. Annual stock composition of the abundance indices for the Northern BC troll fishery for major model stocks from CLB 1106. 36

Figure 3-9. Annual stock composition of the abundance indices for the WCVI troll fishery for major model stocks from CLB 1106. 37

Figure 3-10. CWT-based ISBM indices for Canadian fisheries for 1999-2009. 43

Figure 3-11. CWT-based ISBM indices for U.S. fisheries for 1999-2009. 44

Figure 4-1. Estimated total number of Chinook salmon landed in Selective and Non-Selective fisheries (left y-axis) and % of catch in MSFs (right y-axis) in Puget Sound for catch years 2003-2010. 57

Figure 4-2. Estimated total catch (left y-axis) in Columbia River mark selective and non selective sport fisheries and catches during spring (May-June) and summer-fall seasons (Jul-Dec) and % of catch in MSFs (right y-axis) for catch years 2003-2010. 58

Figure 4-3. Estimated odds ratios (+/- 95% CI) for Chinook salmon DIT stocks for Nisqually, Skagit, Skykomish and Skokomish Rivers where in-river MSFs have been in place. Nisqually brood years 2000 through 2002 had two experimental groups released as DITs. These two groups were combined for this figure. 65

List of Appendices

Appendix A Relationship between exploitation rate indicator stocks, escapement indicator stocks, model stocks, and additional management action stocks identified in the PST annex. 81

Appendix B ISBM indices. 87

Appendix C Percent distribution of landed catch and total mortality among fisheries and escapement for exploitation rate indicator stocks by calendar year with analagous model stocks listed in parentheses. 93

Appendix D Age 2 (fingerling stocks) or age 3 (yearling stocks) CWT survival indices (completed brood years only) for exploitation rate indicator stocks and age 2 or 3 Chinook model (EV) survival indices for corresponding model stocks. Some exploitation rate indicator stocks do not have corresponding model stocks. CWT indices are brood year survival divided by the long term average brood year survival. EV indices are brood year EV's divided by the long term average EV's using the same years in the average as the CWT index. The correlation coefficient (r) between CWT and EV survival indices is shown on each figure. 188

Appendix E Total mortality and landed catch exploitation rates for exploitation rate indicator stocks with analogous model stocks in parentheses (complete broods only) 213

Appendix F Total mortality and landed catch exploitation rates for exploitation rate indicator stocks with analogous model stocks in parentheses (complete broods only) 238

Appendix G Incidental mortality rates applied in the CTC model. Rates in original model were applied to all years. In the current model, rates in some fisheries vary in accordance to changes in management regulations. 245

Appendix H Time series of abundance indices from 1979 to 2011 for SEAK, NBC, and WCVI AABM fisheries as estimated by CTC Chinook Model calibration CLB1106. 246

Appendix I Abundance indices in total and by model stock for AABM fisheries, from Calibration 1106. 247

Appendix J Fishery exploitation rate indices by stock, age and fishery, based on CWT data, 1975–2009. 254

Appendix K Issues with ERA and model calibration 265

List of Acronyms with Definitions

AABM	Aggregate Abundance Based Management
AC	Allowable Catch
AI	Abundance Index
ADF&G	Alaska Department of Fish & Game
AEQ	Adult Equivalent
Agreement	2008 Pacific Salmon Treaty Annex
AUC	Area-Under-the-Curve
AWG	Analytical Working Group of the CTC
ERA	Exploitation Rate Analysis
BCAFC	British Columbia Aboriginal Fisheries Commission
BTR	Base Terminal Run
C&S	Ceremonial & Subsistence
CBC	Central British Columbia Fishing area – Kitimat to Cape Caution
CCMP	Comprehensive Chinook Management Plan
CDFO	Canadian Department of Fisheries & Oceans
CI	Confidence Interval
CNR	Chinook salmon Non-retention
CR	Columbia River
CRITFC	Columbia River Intertribal Fish Commission
CRFMP	Columbia River Fishery Management Plan
CTC	Chinook Technical Committee
CUS	Columbia Upriver Spring Chinook salmon stock
CWT	Coded Wire Tag
DIT	Double Index Tag
ESA	U.S. Endangered Species Act
Est+fw	Estuary Plus Fresh Water Area
FL	Fork Length
FMP	PFMC Framework Management Plan
FNC	First Nations Caucus
FOG	Fisheries Operational Guidelines
FR	Fraser River
GCG	Gene Conservation Group
GW	Gitwinksihlkw
GS	Strait of Georgia
HOR	Hatchery Origin Returns
IDFG	Idaho Department of Fish & Game
IDL	InterDam Loss
IM	Incidental Mortality
ISBM	Individual stock based management
LFR	Lower Fraser River
LGS	Lower Strait of Georgia
Mar	Marine Area
mar+fw	Marine Plus Fresh Water Area
MOC	Mid Oregon Coast
MRP	Mark-Recovery Program
MSF	Mark-Selective Fishery
MSH	Maximum sustainable harvest
MSY	Maximum Sustainable Yield for a stock, in adult equivalents
MSY ER	Exploitation Rate sustainable at the escapement goal for a stock, in AEQs
NBC	Northern British Columbia Dixon Entrance to Kitimat including Queen Charlotte Islands
NA	Not Available
NBC	Northern British Columbia Dixon Entrance to Kitimat including Queen Charlotte Islands
NM	Nautical Mile
NMFS	National Marine Fisheries Service
NOC	Oregon Coastal North Migrating Stocks
NPS	North Puget Sound
NPS-S/F	North Puget Sound Summer/Fall Chinook salmon stock
NR	Not Representative
NWIFC	Northwest Indian Fisheries Commission
ODFW	Oregon Department of Fish & Wildlife
PFMC	Pacific Fisheries Management Council
PS	Puget Sound
PSC	Pacific Salmon Commission
PSARC	Pacific Scientific Advice Review Committee
PSMFC	Pacific States Marine Fisheries Commission
PST	Pacific Salmon Treaty
QDNR	Quinault Department of Natural Resources, Division of fisheries
QIN	Quinault Nation
QCI	Queen Charlotte Islands
RER	Recovery Exploitation Rate
SMSY	Escapement producing MSY
SEAK	Southeast Alaska Cape Suckling to Dixon Entrance
SPFI	Stratified Proportional Fishery Index
SPS	South Puget Sound
SWVI	Southwest Vancouver Island
TAC	Technical Advisory Committee
TBR	Transboundary Rivers
TTC	Transboundary Technical Committee
UAF	University of Alaska Fairbanks
UFR	Upper Fraser River
UGS	Upper Strait of Georgia
USCTC	U.S. members of the CTC
USFWS	U.S. Fish & Wildlife Service
UW	University of Washington
WA/OR	Ocean areas off Washington and Oregon North of Cape Falcon
WAC	Washington Coast (Grays Harbor northward)
WACO	Washington, Oregon, Columbia River Chinook salmon stock group
WCVI	West Coast Vancouver Island excluding Area 20
WDFW	Washington Department of Fisheries and Wildlife

Executive Summary

This report contains the results of the annual exploitation rate assessment of CWT data through 2009 and the preseason Chinook salmon model calibration for 2011 (CLB 1106). Results include the AIs for the AABM fisheries and ISBM indices for each country.

AABM Abundance Indices and Associated Catches

The pre- and postseason AIs for the three AABM fisheries, SEAK, NBC, and WCVI are presented in Table 1-1. The Agreement specifies that the AABM fisheries are to be managed through the use of the AIs. Each calibration provides the postseason AIs for the previous year and the preseason AIs for the current year. Preseason AIs are used to set total allowable catch limits in the upcoming fishing season. Subsequently, postseason AIs are used to track catch overages and underages.

Table 1-1. Abundance Indices for 1999 to 2011 for the SEAK, NBC, and WCVI AABM fisheries (from CLB 1106).

	SEAK		NBC		WCVI	
Year	Preseason	Postseason	Preseason	Postseason	Preseason	Postseason
1999	1.15	1.12	1.12	0.97	0.60	0.50
2000	1.14	1.10	1.00	0.95	0.54	0.47
2001	1.14	1.29	1.02	1.22	0.66	0.68
2002	1.74	1.82	1.45	1.63	0.95	0.92
2003	1.79	2.17	1.48	1.90	0.85	1.10
2004	1.88	2.06	1.67	1.83	0.90	0.98
2005	2.05	1.90	1.69	1.65	0.88	0.84
2006	1.69	1.73	1.53	1.50	0.75	0.68
2007	1.60	1.34	1.35	1.10	0.67	0.57
2008	1.07	1.01	0.96	0.93	0.76	0.64
2009	1.33	1.20	1.10	1.07	0.72	0.61
2010	1.35	1.31	1.17	1.23	0.96	0.95
2011	1.69		1.38		1.15	

The 2008 Pacific Salmon Treaty Agreement specifies an allowable catch for each AI for each fishery. The maximum allowable treaty catch (total catch minus any hatchery add-on and exclusion catch) by fishery and year and the observed treaty catches are shown in Table 1-2.

Table 1-2. Preseason allowable catches for 1999 to 2011, and postseason allowable catches and observed catches for 1999 to 2010, for AABM fisheries.

PST Treaty Allowable and Observed Catches[1]									
	SEAK (T, N, S)[3]			NBC (T, S)			WCVI (T, S)		
Year	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch
1999	192,800	184,200	198,842	145,600	126,100	75,127[2]	128,300	107,000	38,540[2]
2000	189,900	178,500	186,493	130,000	123,500	32,048[2]	115,500	86,200	88,617[2]
2001	189,900	250,300	186,919	132,600	158,900	43,751[2]	141,200	145,500	120,304[2]
2002	356,500	371,900	357,133	192,700	237,800	150,121[2]	203,200	196,800	157,886[2]
2003	366,100	439,600	380,152	197,100	277,200	194,162[2]	181,800	268,900	173,561[2]
2004	383,500	418,300	417,019 421,666[4]	243,600	267,000	243,306[2]	192,500	209,600	215,252[2]
2005	416,400	387,400	390,470	246,600	240,700	243,606	188,200	179,700	199,479
2006	346,800	354,500	362,402	223,200	200,000	215,985	160,400	145,500	145,485
2007	329,400	259,200	328,504	178,000	143,000	144,235	143,300	121,900	140,614
2008	170,000	152,800	173,040	124,800	120,900	95,647	162,600	136,900	145,726
2009	218,800	176,000	230,401	143,800	139,100	109,470	107,800	91,300	124,617
2010	221,800	215,800	231,591	152,100	160,400	136,613	143,700	142,300	139,047
2011	294,800			182,400			196,800		

[1] Nomenclature is T for troll, N for net, and S for sport.
[2] Updated with data from DFO (2009).
[3] AABM troll accounting period is from October 1 to September 30.
[4] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

Table 1-3 shows the differences between the postseason allowable catches and the observed treaty catches in AABM fisheries for 1999–2010, and the cumulative deviation for those years. In 2010, SEAK observed catch was 7.3% higher than the postseason allowable catch; the NBC observed catch was 14.8% lower than the postseason allowable catch; and WCVI observed catch was 2.3% lower than the postseason allowable catch. In SEAK, observed treaty catches have been below final allowable catches for four of the twelve years; the cumulative deviation is a 1.6% overage. In NBC, observed catches have been below the final allowable catches in nine of the twelve years; the cumulative deviation is a 23.3% underage. In WCVI, observed catches have been below allowable catches in five of the twelve years; the cumulative deviation is a 7.8% underage.

Table 1-3. Deviations in numbers of Chinook salmon and percentages from allowable catches derived from the postseason AI (Table 1-2) for Pacific Salmon Treaty AABM fisheries in 1999 to 2010.

Year	SEAK		NBC[1]		WCVI[1]	
	Number of Fish	Percent Difference	Number of Fish	Percent Difference	Number of Fish	Percent Difference
1999	14,642	+7.9%	-50,973	-40.4%	-68,460	-64.0%
2000	7,993	+4.5%	-91,452	-74.1%	2,417	+2.8%
2001	-63,381	-25.3%	-115,149	-72.5%	-25,196	-17.3%
2002	-14,767	-4.0%	-87,679	-36.9%	-38,914	-19.8%
2003	-59,448	-13.5%	-83,038	-30.0%	-95,339	-35.5%
2004	-1,281 3,366[2]	-0.3% +0.8%	-23,694	-8.9%	5,652	+2.7%
2005	3,070	+0.8%	2,906	+1.2%	19,779	+11.0%
2006	7,902	+2.2%	15,985	+8.0%	-15	-0.0%
2007	69,304	+26.7%	1,235	+0.9%	18,714	+15.4%
2008	20,240	+13.2%	-25,253	-20.9%	8,826	+6.4%
2009	54,401	+30.9%	-29,630	-21.3%	33,317	+36.5%
2010	15,791	+7.3%	-23,787	-14.8%	-3,253	-2.3%
Cum.	54,466 59,113	+1.6% +1.7%[2]	-510,529	-23.3%	-142,472	-7.8%

[1] 1999-2004 from DFO (2009).

[2] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

ISBM Indices

For ISBM fisheries, the 2008 Agreement specifies that Canada and the United States reduce base period exploitation rates on specified stocks by 36.5% and 40%, equivalent to ISBM indices of 63.5% and 60%, respectively. This requirement is contained in Chapter 3 section 8(c) of the Agreement and is referred to as the 'general obligation' and does not apply to stock groups that achieve their CTC agreed escapement goals. The Agreement specifies that the ISBM indices be forecasted preseason and evaluated postseason for each escapement indicator stock listed in Attachments I to V of the Chinook Chapter. Postseason ISBM indices were computed for 2009 using CWT data and preseason ISBM indices were computed for 2011 using the Chinook salmon model.

Postseason ISBM Indices for 2009

Canadian postseason ISBM indices computed were reduced more than required under the Agreement for the 7 indices calculated (Table 1-4).

Seven of the 16 U.S. postseason ISBM indices computed were reduced more than required. The other 9 U.S. postseason ISBM indices exceeded 0.60, but these stocks met or exceeded their respective escapement goals, and thus are exempted from the general obligation (Table 1-5).

Preseason ISBM Indices for 2011

Eight of the 19 Canadian preseason ISBM indices, based on outputs from calibration 1106, are predicted to exceed the allowable ISBM index of 0.635 in 2011 (Table 1-4). Seven of these 8 stocks are Puget Sound Natural Summer/Fall stocks, and do not have CTC-accepted escapement goals.

Nine of the 23 U.S. ISBM indices based on calibration 1106 are predicted to exceed the allowable limit of 0.60 for U.S. ISBM fisheries in 2011 (Table 1-5). All but Skagit (which has exploitation rate objectives) have CTC agreed escapement goals: Hoh, Quillayute, Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, all but Nehalem were above their goals in 2010.

Table 1-4. Canadian 2009 ISBM indices based on CWT and the 2011 indices predicted from the PSC Chinook Model.

		Canadian ISBM Indices	
Stock Group	Escapement Indicator Stock	CWT Indices for 2009	Model Indices for 2011
Lower Strait of Georgia	Cowichan Nanaimo	0.400 [4] NA [1,5]	0.367 [6]
Fraser Late	Harrison River [2]	0.058 [7]	0.193
North Puget Sound Natural Springs	Nooksack Skagit	0.106 NA	0.732 0.731
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.247	0.578
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	NA	0.222
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	0.464 [8]	0.491
Puget Sound Natural Summer / Falls	Skagit Stillaguamish Snohomish Lake Washington Green River	NA 0.252 NA NA 0.208	0.745 0.793 0.744 0.752 [9] 0.756 [9]
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NA	0.598
Washington Coastal Fall Naturals [3]	Hoko, Grays Harbor, Queets [2], Hoh [2], Quillayute [2]	NA	0.332
Columbia River Falls [3]	Upriver Brights [2] Deschutes Lewis [2]	NA NA NA	0.620 0.620 0.994
Columbia R Summers [3]	Mid-Columbia Summers [2]	NA	0.359
Far North Migrating OR Coastal Falls [3]	Nehalem [2], Siletz [2], Siuslaw [2]	NA	0.529

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock or stock group with a CTC agreed escapement goal.
[3] Stock group listed in Annex 4, Chapter 3, Attachment V.
[4] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook salmon.
[5] Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook salmon. Until these problems are resolved, indices for this stock will not be reported.
[6] Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
[7] The terminal sport harvest rates for Chilliwack Hatchery Chinook salmon, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population.

[8] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. A more extended review of the indices for WCVI Chinook salmon will be carried out to determine whether they adequately represent impacts on the WCVI wild aggregate.
[9] For Canadian ISBM fisheries, Lake Washington and Green the same distribution and Index value are assumed.

Table 1-5. U.S. 2009 ISBM indices based on CWT and the 2011 indices predicted from the PSC Chinook Model.

Stock Group	Escapement Indicator Stock	U.S. ISBM Indices	
		CWT Indices for 2009	Model Indices for 2011
Washington Coastal Fall Naturals	Hoko	NA [1]	0.419
	Grays Harbor	0.700	0.549
	Queets [4]	0.450	0.327
	Hoh [4]	1.220	0.760
	Quillayute [4]	1.970	1.058
Columbia River Falls	Upriver Brights [4]	2.790	0.841
	Deschutes [4]	2.360	1.044
	Lewis [4]	0.140	0.426
Puget Sound Natural Summer / Falls	Skagit	NA	0.789
	Stillaguamish	0.200	0.169
	Snohomish	NA	0.211
	Lake Washington	NA	0.387
	Green R	0.290	0.236
Fraser Late	Harrison River [4]	0.150 [5]	0.497
Columbia R Summers	Mid-Columbia Summers [4]	1.310	1.398
Far North Migrating OR Coastal Falls	Nehalem [4]	0.590	2.146
	Siletz [4]	0.730	0.643
	Siuslaw [4]	1.070	1.427
North Puget Sound Natural Springs	Nooksack	0.520	0.484
	Skagit	NA	0.271
Lower Strait of Georgia [3]	Cowichan,	5.140	0.367
	Nanaimo	NA	NA
Upper Strait of Georgia [3]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NA	NC [2]
Fraser Early (spring and summers) [3]	Upper Fraser, Mid Fraser, Thompson	NA	0.239
West Coast Vancouver Island Falls [3]	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	NA	0.378
North / Central B. C. [3]	Yakoun, Nass, Skeena, Area 8	NA	NC

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
[3] Stock group listed in Annex 4, Chapter 3, Attachment IV.
[4] Stock with a CTC agreed escapement goal.
[5] The US CWT based indices for Fraser Late from 2005 onward do not accurately reflect the impacts on the natural stock because a considerable proportion of the recoveries in the US fisheries have occurred in mark-selective fisheries in which only clipped hatchery-origin fish are retained. The US indices since 2005 indicate greater impacts than would have occurred on the natural stocks and are no longer being reported.

1 INTRODUCTION

This report describes the methods and results of the cohort analysis, used to estimate exploitation rates from coded wire tag (CWT) data, and the Pacific Salmon Commission (PSC) Chinook salmon model calibration. The results of the 2011 preseason calibration (CLB 1106) are based on the exploitation rate analysis (ERA) using CWT data through catch year 2009, coast-wide data on catch, spawning escapements and age structure through 2010, and forecasts of Chinook salmon returns expected in 2011. This chapter includes:

1. estimated postseason abundance indices for 1979 through 2010 and the preseason projection for 2011 for the aggregate abundance based management (AABM) fisheries,
2. estimated non-ceiling indices, referred to as the individual stock based management (ISBM) indices in this report, for 1999 to 2009 and modeled ISBM projections for the 2011 ISBM fisheries,
3. estimated stock composition for 1979 through 2010 and a projection for 2011 for the AABM and other fisheries, and
4. estimated fishery indices (harvest rates) for the AABM fisheries.

Appendix A shows the relationship between the exploitation rate indicator stocks, escapement indicator stocks, model stocks, and Pacific Salmon Treaty (PST) Annex stocks. Appendices B to I present additional output from the exploitation rate analysis and model calibration beyond the summaries presented in this report. Appendix B provides the time series of ISBM CWT indices and ISBM model indices from calibration 1106. Appendix C shows the percent distribution of landed catch and total mortality by catch year for exploitation rate indicator stocks. Appendix D shows CWT survival indices (completed brood years only) for exploitation rate indicator stocks and age 2 or 3 Chinook model (EV) survival indices for corresponding model stocks. Appendix E has the time series of brood year exploitation rates for the CWT indicator stocks. Appendix F shows the model estimates of stock composition in AABM and other sport and troll fisheries. Appendix G lists the incidental mortality rates used in the CTC model. Appendix H gives the time series of total abundance indices (AIs) for the AABM fisheries, and Appendix I provides the AIs for each model stock for each AABM fishery. Appendix J presents the time series of CWT-based fishery exploitation rate indices by stock, age, and fishery. CWT data quality issues and their resolution are detailed in Appendix K.

1.1 Methods

The exploitation rate assessment is performed through cohort analysis of CWT release and recovery data (CTC 1988). Cohort analysis is the reconstruction of the cohort at a given age accounting for the exploitation history of a given stock and brood year. This technique is used to produce a variety of statistics, including total exploitation rates, age and fishery specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices (Appendix D), and annual distribution of fishery-related mortalities. Estimates of age and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the CTC Model. The calibration procedure estimates pre-age 2 survival to recruitment for the stocks included in the model.

Results from the annual preseason calibration of the Chinook model are used to calculate: 1) AIs for the three AABM fisheries; 2) postseason AIs for the previous year; and 3) preseason ISBM indices. Post season ISBM indices are computed through a separate process using the CWT data that comes out of the Exploitation Rate Analysis. Projected AIs for 2011 are used to determine the allowable 2011 catch of Treaty Chinook salmon for AABM fisheries. Postseason AIs are used to appraise the previous (2010) season's allowable catches and to evaluate compliance for AABM fisheries. For the ISBM fisheries, the Agreement specifies that Canada and the United States will reduce the exploitation rate from the 1979–1982 base period by 36.5% and 40.0%, respectively, on stocks that have not achieved their Chinook Technical Committee (CTC) agreed escapement goals. The ISBM index is used to estimate the exploitation rates relative to the base period. Postseason ISBM indices for 2009 are computed using results of the exploitation rate analysis (2010 will be available next year). Forecasts of the 2011 ISBM indices are computed using the PSC Chinook model. The Agreement specifies that the postseason ISBM indices estimated through exploitation rate analysis of CWT recoveries will be used to assess the ISBM index performance post-season, however the post-season indices are computed on a 2 year-lag because some data are reported two years later.

2 EXPLOITATION RATE ASSESSMENT (THROUGH FISHERY YEAR 2010)

The exploitation rate assessment is performed through cohort analysis, a procedure that reconstructs the exploitation history of a given stock and brood year using CWT release and recovery data (CTC 1988). The procedure produces a variety of statistics, including total exploitation rates, age and fishery specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices, and annual distribution of fishery-related mortalities. Estimates of age and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the PSC Chinook salmon model. The calibration procedure estimates pre-age 2 recruitment survivals for the stocks included in the model.

The CTC currently monitors 43 exploitation rate indicator stocks that are coded-wire tagged, but only 40 were used for these analyses. This is primarily because some of these stock codes have been discontinued while new ones have been added. An exploitation rate indicator stock is not used in the ERA if the number of CWT recoveries is very limited (minimum of 10 estimated recoveries for a given stock and age combination) no quantitative estimate of tags in the spawning escapement, or less than 4 brood years with CWT recoveries (see footnotes in Table 2-2). Indicator stocks used for exploitation rate analysis and the type of analysis performed for each are shown in Table 2-2. The relationship between the exploitation rate indicator stocks, model stocks, and PST Annex stocks are shown in Appendix A. Extrapolation of results to similar stocks and/or generalizations about fishery impacts will only be appropriate to the extent that the exploitation rate indicator stocks are representative of the stock groups they are intended to represent.

2.1 Brood Year Exploitation Rates (Appendix E)

Brood year exploitation rates provide the best measure of the cumulative impact of fisheries upon all age classes of a stock. The rates are computed as the ratio of adult equivalents (AEQ) total fishing mortality to AEQ total fishing mortality plus escapement. The AEQ factor represents the proportion of fish of a given age that would, in the absence of fishing, subsequently leave the ocean to return to the terminal area on the spawning migration. The numerator of the brood year exploitation rate may be partitioned into components for AEQ reported catch and AEQ incidental mortality, with each component occurring in either ocean fisheries or freshwater fisheries.

Table 2-1. CWT exploitation rate indicator stocks, their location, run type, and smolt age.

Stock/Area	Exploitation Rate Indicator Stocks	Hatchery	Run Type	Smolt Age
Southeast Alaska	Alaska Spring	Crystal Lake, Whitman Lake, Little Port Walter, Deer Mountain, Neets Bay	Spring	Age 1
North/Central BC	Kitsumkalum	Deep Creek	Summer	Age 1
WCVI	Robertson Creek	Robertson Cr.	Fall	Age 0
Strait of Georgia	Quinsam	Quinsam	Fall	Age 0
	Puntledge	Puntledge	Summer	Age 0
	Big Qualicum	Big Qualicum	Fall	Age 0
	Cowichan	Cowichan	Fall	Age 0
	Nanaimo	Nanaimo	Fall	Age 0
Fraser River	Chilliwack (Harrison Stock)[1]	Chilliwack	Fall	Age 0
	Lower Shuswap	Shuswap Falls	Summer	Age 0
	Nicola	Spius Creek	Spring	Age 1
	Dome	Penny Creek	Spring	Age 1
North Puget Sound	Skagit Spring Fingerling	Marblemount	Spring	Age 0
	Skagit Spring Yearling[1]	Marblemount	Spring	Age 1
	Skagit Summer Fingerling	Marblemount	Summer	Age 0
	Nooksack Spring Fingerling	Kendall Cr.	Spring	Age 0
	Nooksack Spring Yearling	Kendall Cr.	Spring	Age 1
	Samish Fall Fingerling [1]	Samish	Summer/Fall	Age 0
Central Puget Sound	Stillaguamish Summer Fingerling	Stillaquamish Tribal	Summer/Fall	Age 0
	South Puget Sound Fall Fingerling[1]	Soos Cr. / Grovers Cr.	Summer/Fall	Age 0
	Univ. of Washington Accelerated	UW	Summer/Fall	Age 0
South Puget Sound	South Puget Sound Fall Yearling	Tumwater Falls	Summer/Fall	Age 1
	White River Spring Yearling[2]	White R.	Spring	Age 1
	Nisqually Fall Fingerling [1]	Clear Cr.	Summer/Fall	Age 0
Hood Canal	George Adams Fall Fingerling [1]	George Adams	Summer/Fall	Age 0
Juan de Fuca	Elwha Fall Fingerling	Lower Elwha	Summer/Fall	Age 0
	Hoko Fall Fingerling	Hoko	Summer/Fall	Age 0
North Wash. Coast	Sooes Fall Fingerling	Makah NFH	Fall	Age 0
	Queets Fall Fingerling (wild brood)	Salmon R. (WA)	Fall	Age 0
Willamette R.	Willamette Spring[1]	Willamette H	Spring	Age 1
Lower Columbia R.	Cowlitz Tule (WA)	Cowlitz	Fall Tule	Age 0
	Spring Creek Tule (WA)[1]	Spring Cr. NFH	Fall Tule	Age 0
	Columbia Lower River Hatchery[1]	Big Creek	Fall Tule	Age 0
	Lewis River Wild	Wild	Fall Bright	Age 0
Upper Columbia R.	Columbia Summers (WA)	Wells	Summer	Age 1
	Columbia Upriver Bright	Priest Rapids	Fall Bright	Age 0
	Hanford Wild	Wild	Fall Bright	Age 0
Snake River	Lyons Ferry [3,1]	Lyons Ferry	Fall Bright	Age 0
North Oregon Coast	Salmon River	Salmon R.	Fall	Age 0
Mid Oregon Coast	Elk River	Elk R.	Fall	Age 0

[1] DIT tags associated with this stock.
[2] No longer adipose fin clipped
[3] Subyearlings have been CWT-tagged since brood year 1986, except for brood years 1993 through 1997

Table 2-2. The 40 CWT exploitation rate indicator stocks used in the exploitation rate analysis and the data derived from them during the base period years 1979–1982.

Exploitation Rate Indicator Stocks	Fishery Index	ISBM Index	BER[1]	Survival Index	Distribution	Escapement	Base Tagging
Alaska Spring	Yes	—	Total	Yes	Yes	Yes	Yes
Kitsumkalum	—	—	Total	Yes	Yes	Yes	—
Robertson Creek	Yes	Yes	Ocean[1]	Yes	Yes	Yes	Yes
Quinsam	Yes	Yes	Total	Yes	Yes	Yes	Yes
Puntledge	Yes	—	Total	Yes	Yes	Yes	Yes
Big Qualicum	Yes	Yes	Total	Yes	Yes	Yes	Yes
Nanaimo	—	Yes	Total	Yes	Yes	Yes	Yes
Dome	—	—	Total	—	Yes	Yes	—
Lower Shuswap	—	—	Total	—	Yes	Yes	Yes
Nicola	—	—	Total	—	Yes	Yes	—
Cowichan	Yes	Yes	Total	Yes	Yes	Yes	—
Chilliwack (Harrison Fall Stock)	—	Yes	Total	Yes	Yes	Yes	—
Nooksack Spring Fingerling	—	—	[4]	—	Yes	Yes	—
Nooksack Spring Yearling	—	Yes	[4]	Yes	Yes	Yes[3]	—
Skagit Spring Fingerling	—	—	Ocean	—	Yes	Yes	—
Skagit Spring Yearling	—	—	Ocean	Yes	Yes	Yes[3]	—
Samish Fall Fingerling	Yes	—	Ocean	Yes	Yes	Yes[3]	Yes
Skagit Summer Fingerling	—	—	Ocean	—	Yes	Yes	—
Stillaguamish Summer Fingerling	—	Yes	[4]	—	Yes	—	—
Nisqually Fall Fingerling	—	—	[4]	—	Yes	—	Yes
University of Washington Accelerated	Yes	[2]	[2]	—	Yes	Yes[3]	Yes
George Adams Fall Fingerling	Yes	[2]	[2]	Yes	Yes	Yes[3]	Yes
South Puget Sound Fall Fingerling	Yes	Yes	Ocean	Yes	Yes	Yes[3]	Yes
South Puget Sound Fall Yearling	Yes	[2]	[2]	Yes	Yes	Yes[3]	Yes
Squaxin Pens Fall Yearling	—	[2]	[2]	Yes	Yes	Yes[3]	—
White River Spring Yearling	—	—	[4]	Yes	Yes	Yes[3]	Yes
Elwha Fall Fingerling	—	—	[4]	Yes	Yes	—	—
Hoko Fall Fingerling	—	—	Ocean	Yes	Yes	Yes	—
Sooes Fall Fingerling	—	—	Ocean	Yes	Yes	Yes	—
Queets Fall Fingerling	—	Yes	[4]	Yes	Yes	—	Yes
Willamette Spring	Yes	—	Ocean	Yes	Yes	Yes	Yes
Columbia Summers	Yes	Yes	Total	Yes	Yes	Yes	—
Cowlitz Tule	Yes	—	Ocean	Yes	Yes	Yes	Yes
Spring Creek Tule	Yes	—	[2]	Yes	Yes	Yes	—
Columbia Lower River Hatchery	Yes	—	[2]	Yes	Yes	Yes	Yes
Upriver Bright	Yes	Yes	Total	Yes	Yes	Yes	Yes
Hanford Wild	—	—	Total	Yes	Yes	Yes	—
Lyons Ferry	—	—	Total	Yes	Yes	Yes	—
Lewis River Wild	Yes	Yes	Total	Yes	Yes	Yes	Yes
Salmon River	Yes	Yes	Ocean	Yes	Yes	Yes	Yes

[1] For stocks of hatchery origin and subject to terminal fisheries directed at harvesting surplus hatchery production, ocean fisheries do not include terminal net fisheries. Otherwise, total fishery includes terminal net fisheries.
[2] Hatchery stock not used to represent naturally spawning stock.
[3] Only hatchery rack recoveries are included in escapement.
[4] Insufficient escapement data for exploitation rate analysis.

The exploitation rate on an indicator stock may differ from the exploitation rate on the wild stock it represents if the indicator stock is of hatchery origin and subject to terminal fisheries directed at harvesting surplus hatchery production. In the case of the brood year exploitation rate, this

difference was addressed by computing a rate for ocean fisheries and a total for all fisheries. Ocean fisheries were defined to include marine sport and troll fisheries and CWT recoveries of ocean age 2 and age 3 fish in all non-terminal net fisheries. By partitioning the fisheries in this way, the most appropriate measure of brood year exploitation rate on wild stocks could be selected. The method selected for each exploitation rate indicator stock is given in Table 2-2. If broods are incomplete, but have data through age 4 (age 5 for spring stocks), then average maturation rates are applied to predict the completed brood value.

The brood year exploitation rate (BYEXP) is calculated as:

$$BYEXP_{BY,F} = \frac{\sum_{a=Minage}^{Maxage}\left(\sum_{f\in\{F\}} TotMorts_{BY,a,f} * AEQ_{BY,a,f}\right)}{\sum_{a=Minage}^{Maxage}\left(\sum_{f=1}^{Numfisheries} TotMorts_{BY,a,f} * AEQ_{BY,a,f} + Esc_{BY,a}\right)} \qquad \text{Equation 2.1}$$

The AEQ rate is calculated as:

$$AEQ_{BY,a-1,f} = MatRte_{a-1,BY} + (1 - MatRte_{a-1,BY}) * Surv_a * AEQ_{BY,a,f}$$
$$AEQ_{BY,Maxage,f} \equiv 1.0 \qquad \text{Equation 2.2}$$

See Table 2-3 for a description of notation.

Table 2-3. Parameter definitions for all equations except those used for Stratified Proportional Fishery Index (SPFI) in SEAK.

Parameter	Description
a =	age class
A =	set of all ages that meet selection criteria
$AEQ_{BY,a,f}$ =	adult equivalent factor in brood year *BY*, age *a*, and fishery *f* (for terminal fisheries, *AEQ* = 1.0 for all ages)
$Age2CohSurv_{BY}$ =	cohort survival of CWT fish to age 2 (pre-fishery) for brood year *BY*
$AvgMatRte_a$ =	average maturation rate for age *a*
$BPER$ =	base period years (1979 through 1982)
$BYEXP_{BY,F}$ =	brood year exploitation rate in adult equivalent for brood year *BY* and fishery *F*
$BPISBMER_{f,a}$ =	average base period ISBM exploitation rate for fishery *f* and age *a*
BY =	brood year
$Cohort_{BY,a}$ =	cohort by brood year *BY* and age *a* (*where stock is implied from context*)
$Cohort_{s,BY,a}$ =	cohort by stock *s*, brood year *BY* and age *a* (*where stocks are defined explicitly in a summation*)
CY =	calendar year
$CYDist_{CY,F}$ =	proportion of total stock mortality (or escapement) in a calendar year *CY* attributable to a fishery or a set of fisheries *F*
CY_{end} =	end year for average
CY_{start} =	start year for average
$d_{t,s,a}$ =	distribution parameter for timestep *t*, stock *s*, and age *a*
$Esc_{Y,a}$ =	escapement past all fisheries for either brood year *BY* or calendar year *CY* and age a
$ER_{s,a,f,CY}$ =	exploitation rate (based on total mortality) at age *a* divided by cohort size at age *a* for stock *s* in fishery *f* in year *CY*
$EV_{n,BY}$ =	the stock productivity scalar for iteration *n* and brood year *BY*
f =	a single fishery
$f \in \{F\}$ =	a fishery *f* within the set of fisheries of interest
F =	ocean, terminal or other sets of fisheries or spawning escapements
$FI_{f,CY}$ =	fishery exploitation rate index for fishery *f* in year *CY*
$FP_{a,s,CY,f}$ =	ratio of $ER_{s,a,f,CY}$ to *BPISBMER*
$ISBMIdxCY$ =	ISBM index for calendar year *CY*
$MatRte_{a-1,BY}$ =	maturity rate at next younger age by brood year
$Maxage$ =	maximum age of stock (generally age 6 for stream type stocks, age 5 for ocean type stocks)
$Minage$ =	minimum age of stock (generally age 3 for stream type stocks, age 2 for ocean type stocks)
$Morts_{CY,a,f}$ =	landed or total fishing mortality in year *CY* and age *a* in fishery *f*
NMa =	annual natural mortality prior to fishing on age *a* cohort
$Numfisheries$ =	total number of fisheries
RT_{CY} =	ratio of the catch quota in the current year to the catch that would be predicted given current abundance, current size limits, and base period exploitation rates
s =	a particular stock
S =	set of all stocks that meet selection criteria
SC_{BY} =	ratio of the estimated and model predicted terminal run for brood year *BY*
$Surv_a$ =	survival rate (1-NM_a) by age
$TotMorts_{BY,a,f}$ =	total fishing related mortality for brood year *BY* or calendar year *CY* or during the base period BPER and age *a* in fishery *f*
$TotCWTRelease_{BY}$ =	number of CWT fish released in the indicator group in brood year *BY*

2.2 Brood Year Survival Rates and Indices (Appendix D)

The brood year survival of CWT-tagged smolts after release is calculated for most exploitation rate indicator stocks (Table 2.2). This survival rate is frequently referred to as the marine survival of the tag group but also includes any mortality occurring in freshwater following release. Interpretation of this survival rate is stock specific. Two measures of survival indices or

patterns are computed: survival to the age 2 cohort based on CWT recoveries, and the "environmental variable" (EV) determined from the calibration of the PSC Chinook salmon model (described in the following section). The CWT-based estimate is our most direct measure of a brood's survival, but this measure is not available until the brood is complete (i.e., all ages have returned to spawn). The model EV parameter, however, provides a more current measure of the survival rates expected in brood years contributing to present and future fisheries.

For CWT data, the survival rate for a stock and brood year is the estimated age 2 cohort (from the cohort analysis) divided by the number of CWT fish released. (For yearling stocks, the survival rate is calculated for the estimated age 3 cohort.)

$$Age2CohSurv_{BY} = \frac{Cohort_{BY,2}}{TotCWTRelease_{BY}} \qquad \text{Equation 2.3}$$

where CohortBY,2 is calculated recursively from the oldest age down to age-2 using:

$$Cohort_{BY,a} = \frac{\sum_{f=1}^{Numfisheries} TotMorts_{BY,a,f} + Esc_{BY,a} + Cohort_{BY,a+1}}{1 - NM_a} \qquad \text{Equation 2.4}$$

If ocean age-5 tags are absent, the age-4 cohort size is estimated using the following formula:

$$Cohort_{BY,4} = \frac{\sum_{f \in Preterminal} TotMorts_{BY,4,f} + \frac{Esc_{BY,4} + \sum_{f \in Terminal} TotMorts_{BY,4,f}}{AvgMatRte_4}}{1 - NM_4} \qquad \text{Equation 2.5}$$

For each stock, equation 2.3 is then converted into a survival index for a given brood year by dividing the age 2 survival rate for the brood year by the average survival rate for all brood years.

2.3 Stock Distribution Patterns (Appendix C)

Brood year exploitation rates can indicate the fisheries that exploit a stock and the rates that occur on a specific brood, but do not indicate the exploitation pattern on a stock during one calendar year (across broods). To gain insight on impacts within a fishing year, stock mortality distributions (reported catch or total) are calculated over all ages in the fisheries in a calendar year (if at least three brood years contribute to recoveries) as follows:

$$CYDist_{CY,F} = \frac{\sum_{a=Minage}^{Maxage} \sum_{f \in \{F\}} Morts_{CY,a,f} * AEQ_{BY=CY-a,a,f}}{\sum_{a=Minage}^{Maxage} \left(\sum_{f=1}^{Numfisheries} Morts_{CY,a,f} * AEQ_{BY=CY-a,a,f} + Esc_{CY,a} \right)} \qquad \text{Equation 2.6}$$

It should be noted that mortality distributions may not indicate the relative distribution of an indicator stock. For example, closure of a fishery would result in no reported catch but this would not necessarily indicate zero abundance of the stock in that fishing area.

2.4 Fishery Indices (Appendix J)

When the Pacific Salmon Treaty was negotiated in 1985, catch ceilings and increases in stock abundance were expected to reduce harvest rates in fisheries. The fishery index (FI) provided a means to assess performance against this expectation. Relative to the base period, an index less than 1.0 represents a decrease from base period harvest rates while an index greater than 1.0 represents an increase. While the determination of allowable catch for AABM fisheries in the 1999 Agreement is different from the original PST catch ceilings, these fishery indices continue to provide a useful index of change in harvest rates in these fisheries. Fishery indices are used to measure relative changes in fishery harvest rates because it is not possible to directly estimate the fishery harvest rates.

Fishery indices are computed in AEQs for both reported catch and total mortality (reported catch plus estimated incidental mortality). The total mortality index provides a consistent means of representing changes in reported catch and incidental mortality, including those associated with regulatory measures such as minimum size limits and CNR periods. The AEQ exploitation rate (ER) is estimated by;

$$ER_{s,a,f,CY} = \frac{TotMorts_{s,a,f,CY} * AEQ_{s,BY=CY-a,a,f}}{Cohort_{s,BY=CY-a,a} * (1 - NM_a)}$$

Equation 2.7

and a ratio of means (ROM) estimator is used to calculate the fishery index (FI),

$$FI_{f,CY} = \frac{\sum_{s\in\{S\}}\sum_{a\in\{A\}} ER_{s,a,f,CY}}{\left(\frac{\sum_{BPER=79}^{82}\sum_{s\in\{S\}}\sum_{a\in\{A\}} ER_{s,a,f,BPER}}{4}\right)}$$

Equation 2.8

For AABM fisheries, indices are presented for troll gear only, although the catch limitations also apply to recreational fisheries and net fisheries in SEAK and the recreational fisheries in NBC and WCVI. As in past years, recoveries from the troll fishery were used because the majority of the catch and the most reliable CWT sampling occur in these fisheries. In addition, there are data limitations in the base period due to inadequate sampling and catch estimation for the sport fisheries. Because the allocation of the catch among gear types has changed in some fisheries (e.g., the proportion of the catch harvested by the sport fishery has increased in all AABM fisheries), the indices may not represent the harvest impact of all gear types.

The CTC uses fishery indices to reflect changes in fishery impacts relative to the base period (fishery years 1979–1982). The ROM estimator of the fishery index limits inclusion of stocks to

those with adequate tagging during the base period, but fishing patterns for some fisheries have changed substantially since then and the University of Washington Accelerated stock is no longer tagged. One example of a change in the fishing pattern is for the SEAK troll fishery where the catch during the winter season has increased, the spring fishery has been largely curtailed, and the summer season has become markedly shorter. Because stock complexes are dynamic throughout the year, stock specific impacts of the SEAK fishery have likely changed over time. To incorporate changes in stock composition and to include stocks without base period data, the CTC examined alternative derivations of fishery indices (CTC 1996).

The CTC determined that a useful fishery index should reflect both changes in harvest rates and stock distribution. Three general, desirable characteristics were identified:

1. the index should measure changes in fishery harvest rates if the distribution of stocks is unchanged from the base period;
2. the index should have an expected value of 1.0 for random variation around the base period fishery harvest rate, cohort size, and stock distributions; and
3. the index should weight changes in stock distribution by abundance.

After exploring several alternatives, the CTC concluded that the best estimate for a fishery index would consist of the product of a fishery harvest rate index and an index of stock abundance weighted by average distribution (i.e., the proportion of a cohort vulnerable to the fishery). To that effect a report by the CTC (2009a) stated that for all AABM fisheries the stratified proportional harvest rate index (SPFI) was the most accurate and precise in estimating the harvest rate occurring in a fishery. This assessment supported the application of the SPFI adjusted for untagged stocks as presented by Alaska Department of Fish and Game (ADF&G), and is also developed for WCVI and NBC AABM fisheries.

For computation of the SPFI, the CWT harvest rate (ht,cy) must initially be set to an arbitrary value between 0 and 1. Then, the distribution parameter (dt,s,a) is calculated (Equation 2.9), and the result is substituted into Equation 2.10 below to recursively recalculate ht,cy and subsequently dt,s,a. The largest stock-age distribution parameter in a stratum is then set to 1 to create a unique solution. See Table 2-4 for notation description.

$$d_{t,s,a} = \sum_{CT} r_{t,CT,s,a} \Big/ \sum_{CT} \left(h_{t,CT} * n_{CT,s,a} \right)$$

Equation 2.9

$$h_{t,CT} = \sum_{s} \sum_{a} r_{t,CT,s,a} \Big/ \sum_{s} \sum_{a} \left(d_{t,s,a} * n_{CT,s,a} \right)$$

Equation 2.10

The resulting unique solution is inserted into the following equations to compute the yearly harvest rates for each strata and the overall fishery.

$$H_{t,CT} = \left[\left(\frac{\sum_{s} \sum_{a} c_{t,CT,s,a}}{\sum_{s} \sum_{a} r_{t,CT,s,a}} \right) * \left(C_{t,CT} - A_{t,CT} \right) \right] \Big/ \left[\left(C_{t,CT} - A_{t,CT} \right) / h_{t,CT} \right]$$

Equation 2.11

$$H_{CY} = \sum_t \left[\left(\frac{\sum_s \sum_a c_{t,CY,s,a}}{\sum_s \sum_a r_{t,CY,s,a}} \right) * \left(C_{t,CY} - A_{t,CY} \right) \right] \Bigg/ \sum_t \left[\left(C_{t,CY} - A_{t,CY} \right) / h_{t,CY} \right]$$

Equation 2.12

$$S_{t,CY} = H_{t,CY} \Big/ \sum_{CY=1979}^{1982} H_{t,CY}$$

Equation 2.13

$$S_{CY} = H_{CY} \Big/ \sum_{CY=1979}^{1982} H_{CY}$$

Equation 2.14

Table 2-4. Parameter descriptions for equations used for the SPFI.

Parameter	Description
$A_{t,CY}$ =	Alaska hatchery origin catch by strata *t*, year *CY*
$c_{t,CY,s,a}$ =	adult equivalent CWT catch by strata *t*, year *CY*, stock *s* and age *a*
$C_{t,CY}$ =	catch by strata *t*, year *CY*
$d_{t,s,a}$ =	distribution parameter by strata *t*, stock *s* and age *a*
$h_{t,CY}$ =	CWT harvest rate by strata *t*, year *CY*
H_{CY} =	harvest rate by year *CY*
$H_{t,CY}$ =	harvest rate by strata *t*, year *CY*
$n_{CY,s,a}$ =	CWT cohort size by year *CY*, stock *s* and age *a*
$r_{t,CY,s,a}$ =	CWT recoveries by strata *t*, year *CY*, stock *s* and age *a*
S_{CY} =	SPFI by year *CY*
$S_{t,CY}$ =	SPFI by strata *t*, year *CY*

2.5 ISBM Indices

The CTC (1996) proposed a non-ceiling fishery index as a measure of the pass-through provision in the 1985 PST. This index compares an 'expected' AEQ mortality (assuming base period exploitation rates and current stock abundance) with the observed AEQ mortality on a stock within a calendar year, over all non-AABM fisheries of a party (Table 2-5). Index values less than 1.0 indicate that the exploitation rates have decreased relative to the base period. Paragraph 8(d), Chapter 3 of the 2008 PSC Agreement directs the CTC to use these ISBM indices to measure the performance of ISBM fisheries:

"(d) unless otherwise recommended by the CTC and approved by the Commission, the non-ceiling index defined in TCChinook (05)-3 where data are available for the required time periods, the average total annual adult equivalent mortality rate that occurred in 1991 to 1996 (see Attachments IV and V), or an alternative metric recommended by the CTC and approved by the Commission will be used to monitor performance of ISBM fisheries relative to the obligations set forth in this paragraph;"

Table 2-5. Fisheries included in the ISBM index by nation.

Fisheries Included in ISBM Index	
United States	Canada
Washington/Oregon Ocean Troll	Central BC Troll
Puget Sound Northern Net	Strait of Georgia Troll
Puget Sound Southern Net	North BC Net
Washington Coastal Net	Central BC Net
Freshwater Terminal Net	West Coast Vancouver Island Net
Washington/Oregon Ocean Sport	Strait of Juan de Fuca Net
Puget Sound Northern Sport	Johnstone Strait Net
Puget Sound Southern Sport	Fraser Net
Freshwater Terminal Sport	Freshwater BC Net
	Strait of Georgia Sport
	Strait of Juan de Fuca Sport
	Freshwater BC Sport

The formula proposed by the CTC in 1991 and referred to in CTC (1996) for a stock/country combination is:

$$ISBMIdx_{CY} = \frac{\sum_{f \in \{F\}} \sum_{a=Minage}^{Maxage} \left(TotMorts_{CY,f,a} * AEQ_{BY=CY-a,a,f} \right)}{\sum_{f \in \{F\}} \sum_{a=Minage}^{Maxage} \left(BPISBMER_{f,a} * Cohort_{BY=CY-a,a} \right)}$$

Equation 2.15

where,

$$BPISBMER_{f,a} = \frac{\sum_{BPER=79}^{82} \frac{\left(TotMorts_{BPER,f,a} * AEQ_{BY=BPER-a,a,f} \right)}{Cohort_{BY=BPER-a,a}}}{4}$$

Equation 2.16

Direct application of the PSC Chinook salmon model alone or CWT data alone was not possible in the computation of all ISBM indices because some fisheries required a finer resolution than the CTC model currently provides or because some terminal fisheries target only marked hatchery fish which makes the estimated CWT-based exploitation rate non-representative of the untagged stocks.

In those instances the following methods were used:

For terminal fisheries with marked harvest rates that were not representative of the untagged stocks of interest, external estimates were used instead of model estimates. For preseason estimates, the Fisheries Resource Assessment Model (FRAM) and the Columbia River Harvest Model were used to generate external estimates for Puget Sound net and sport, and Columbia River net and sport fisheries, respectively. For postseason CWT-based estimates, base period exploitation rates for the model stock associated with the wild stock were used if the indicator stock did not have base period recoveries.

Many ISBM fisheries or stock/fishery combinations have no preseason predictions of harvest rates and some have no abundance forecasts. In those cases, the previous year's harvest rates were assumed.

2.6 Assumptions of the CWT ERA Analyses

Assumptions used in the cohort analysis and other procedures used in the ERA are summarized below. Detailed discussions of assumptions and parameter values have been reported previously (CTC 1988). The analysis is necessary to calculate the fishery indices for the AABM fisheries and the non-ceiling index for the ISBM fisheries. The primary assumptions of the cohort analysis are:

1) CWT recovery data are obtained in a consistent manner from year to year or can be adjusted to make them comparable. Many of the analyses rely upon indices that are computed as the ratio of a statistic in a particular year to the value associated with a base period. Use of ratios may reduce or eliminate the effect of data biases that are consistent from year to year.
2) For ocean age 2 and older fish, natural mortality varies by age but is constant across years. Natural mortality rates applied by age are: age 2, 40%; age 3, 30%; age 4, 20%; and age 5 and older 10% (i.e., after fishing mortality and maturation of the age 4 cohort, 10% of the remaining immature fish die due to natural sources before becoming age 5 fish and before the commencement of fishing the next year).
3) All stocks within a fishery have the same size distribution for each age and the size distribution at age is constant among years.
4) The spatial and temporal catch distribution of sublegal-size fish of a given age from a stock is the same as legal-size fish of a given age of that stock.
5) Incidental mortality rates per encounter are constant between years. The rates vary by fish size (legal or sublegal) and fishery and are those published by the CTC (1997) for troll and sport fisheries. The rates used in CLB 1106 are listed in Appendix G.
6) The procedures for estimating the mortality of CWT fish of legal size during periods of Chinook salmon non-retention (CNR) assume that the stock distribution in any year remains unchanged from the period of legal catch retention in the same year. However, gear and/or area restrictions during CNR fisheries are believed to reduce the number of encounters of legal-size fish. To account for this, the number of legal encounters during the CNR fishery was adjusted by a selectivity factor. A factor of 0.34 was used for the WCVI and Strait of Georgia (GS) troll fisheries. This value was the average selectivity factor calculated from 3 years of observer data in the Alaska troll fishery. A factor of 0.20 was used in the North Central British Columbia (NCBC) troll fishery. This factor corresponds to the proportion of fishing areas that remain open during non-retention periods. A selectivity factor was not required for the SEAK troll fishery since an independent estimate of legal and sublegal encounters has been provided annually.
7) Maturation rates for brood years in which all ages have not matured (incomplete broods) are equal to the average of completed brood years. Maturation rates are stock specific.
8) Recoveries of age 4 (age 5 for spring stocks) and older Chinook salmon in ocean net fisheries are assumed to be mature fish (ocean terminal catches).

In addition, when using the fishery indices as a measure of the change in fishery harvest rates between years, the temporal and spatial distribution of stocks in and among fisheries and years is assumed to be stable.

For AABM fisheries, the fishery indices are presented for both reported catch (same as landed catch) and total mortality; only total mortality indices are presented for the ISBM fisheries. The difference between reported catch and total mortality is incidental mortality, which includes the mortality of legal-size fish in CNR fisheries and the mortality of sublegal-size fish in both retention and CNR fisheries. Management strategies have changed considerably for fisheries of interest to the PSC since 1985. Regulatory changes have included size limit changes, extended periods of CNR in troll fisheries, and mandatory release of Chinook salmon caught in some net fisheries. Estimates of incidental mortality are crucial for assessment of total fishery impacts, yet they cannot be determined directly from CWT recovery data. There are four categories of incidental mortality that are estimated in the Chinook salmon model and the CWT cohort analysis. Legal and sublegal fishery specific mortality rates are applied to the following types of Chinook salmon encounters:

1) Shakers: Chinook salmon below the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon retention fishery.
2) Sublegal CNR: Chinook salmon below the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon non-retention fishery. The mortality rate per encounter applied to sublegal CNR is the same applied to shakers.
3) Legal CNR: Chinook salmon above the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon non-retention fishery.
4) Drop-off: Chinook salmon above or below the legal size limit that are encountered, but are lost from the gear before they reach the boat during either retention or non-retention fisheries. Drop-off mortality is assumed the same for legal and sublegal fish, but can vary by gear type.

There are several methods used to estimate the number of CNR mortalities in the model and the CWT cohort analysis. The 'season length' method uses the relative length of the Chinook salmon retention and non-retention periods. This is usually expressed in days or boat-days. In a related method, direct estimates of CNR encounters provided by the agencies are related to the size of the landed catch. The CWT cohort analysis can also use a method based on catchability coefficients where no associated Chinook salmon retention period exists for the fishery. The 'season length' method used in the exploitation rate assessment was described in CTC (1988). The Chinook salmon model also can also use a method, known as the 'RT' method, based on the difference between the base period and the current year exploitation rates, and current cohort sizes. In both the season length and RT methods, the stock composition of the legal CNR encounters is assumed to be the same as the stock composition of the legal catch. The stock composition of the shakers and sublegal CNR encounters is estimated using the non-vulnerable portions of the cohorts for stocks that contribute to the landed catch. The procedures used to estimate incidental mortality in the Chinook salmon model have been described by the unpublished draft model documentation CTC AWG (1991) and CTC (2004).

For some fisheries or years, CWT recoveries are either lacking or cannot be used in certain analyses of this exploitation rate assessment. In some of these situations the model can be used for ER assessment.

2.7 Results of ERA (Appendix C, D and E):

The purpose of the Exploitation Rate Analysis (ERA) is to estimate post-season how stocks and fisheries perform across the various AABM and ISBM fisheries. To this effect, we report numerous statistics by region and stock that are assembled in Appendices C through E. Appendix C summarizes tag distributions for each stock by year, region (specifically AABM and ISBM fisheries) and escapement. Appendix D summarizes survival indices by stock based on CWTs and the PSC Chinook salmon model. Summaries of how these two types of indices relate are reported with a correlation coefficient in each of these graphs. Finally Appendix E summarizes the exploitation rate for complete broods for pre-terminal and terminal fisheries by stock.

3 MODEL CALIBRATION AND OUTPUT

3.1 Model Calibration

This section describes the calibration data and procedures. For reference, a list of stocks and fisheries in the model is provided in Appendix A. Estimation of the model base period parameters is described in the draft model documentation (CTC AWG 1991). For 2011, the model used was the same as used during the Pacific Salmon Treaty negotiations (CLB 9812), but with the exception that the actual catches, escapements, and other data through 2010 were added. In addition, CTC-accepted escapement goals were used where available and the form of the Ricker production function was adjusted for those stocks with newly accepted goals (e.g. Harrison River fall Chinook salmon).

3.1.1 Calibration Data

The first step in the annual calibration process is to gather new or revised data and update the appropriate model input files. The frequency of updates depends on the frequency of data changes made by the reporting agencies, the magnitude of the change, and the significance of the change to the current model application. For example, the file containing run size data is updated as preseason forecasts and postseason estimates become available since model predictions are sensitive to preseason forecasts and postseason estimates of terminal runs. Months in which forecasts are made for each stock, and the month the final return estimate becomes available, are presented in Table 3-1.

The model is recalibrated annually to incorporate observed data from the previous year and available abundance forecasts for next year. In addition, recalibration may also occur when significant changes in one or more of the following model input files are made.

BSE (base). This file contains basic information describing the structure of the model, including, but not limited to, the number of stocks, age classes and fisheries, the names of fisheries and the proportion of each age class that was not vulnerable to the gear during the base period, identification of terminal fisheries, stock names and production parameters. This file may be modified annually to incorporate productivity parameters that correspond to new CTC agreed escapement goals.

CEI (ceiling). This file contains historical catch data for the 19 fisheries that are modeled as ceiling or catch quota fisheries (as opposed to fisheries modeled solely through control of exploitation rates) through the most recent fishing season.

CNR (Chinook salmon non-retention). Data used by the model to estimate mortalities during CNR periods are read from the CNR file. The data in the CNR file depends on which method is used to calculate CNR mortality. It may include direct estimates of encounters during the CNR period or indicators of fishing effort in the CNR period relative to the retention period.

Table 3-1. Months when final return estimates are available for the previous year and preseason forecasts of abundance are available for the next fishing year from agencies.

Model Stock	Month Final Return Estimate Available	Month(s) Forecast Available
Alaska South SE	January	None
North/Central BC	November	None
WCVI Natural	January	February
WCVI Hatchery	January	February
Upper Strait of Georgia	January	None
Lower Strait of Georgia Hatchery	December	None
Lower Strait of Georgia Natural	December	None
Fraser Early	January	None
Fraser Late	February	February
Nooksack Spring	June	Not Used
Nooksack Fall (Samish)	June	February
Snohomish Wild	June	February
Skagit Wild	June	February
Puget Sound Natural Fingerling	June	February
Stillaguamish Wild	June	February
Puget Sound Hatchery Fingerling	June	February
Puget Sound Hatchery Yearling	June	February
Washington Coastal Wild	June	None
Washington Coastal Hatchery	June	None
Cowlitz Spring Hatchery	June	December
Willamette River Hatchery	June	December
Columbia River Summer	September	March
Fall Cowlitz Hatchery	April	February, April[1]
Spring Creek Hatchery	April	February, April
Lower Bonneville Hatchery	April	February, April
Upriver Brights	April	February, April
Snake River Wild Fall	April	April
Mid-Columbia River Bright	April	February, April
Lewis River Wild	April	February, April
Oregon Coast	February	February

[1] A preliminary ocean escapement forecast is released in February. An updated ocean escapement forecast reflecting the ocean fishery option adopted by PFMC is released in April.

ENH (enhancement file). This file contains productivity parameters and smolt production for 13 hatchery stocks and one natural stock (Lower Georgia Strait Naturals) with supplementation. Smolt production is expressed as the deviation from the average production during the model base period; as a result, values in the ENH file can be negative if releases in a given year are less than the average reported for the model base period. Additional discussion of the productivity parameters may be found in the draft model documentation (CTC AWG 1991).

FCS (forecast). Estimates of terminal run sizes or escapements and agency supplied preseason forecasts are included in the FCS file. Age-specific information is used for those stocks and years with age data (Table 3-2).

FP (fishery policy). This file contains scalars that are specific to year, fishery, stock and age that are applied to base period fishery exploitation rates. The FPs are used to scale fishery exploitation rates relative to the model base period and can be used for a variety of purposes. For example, in the ocean areas off the Washington and Oregon North of Cape Falcon (WA/OR) troll fishery, the FPs are used to model the differential impacts on Columbia River and Puget Sound stocks as the proportion of the catch occurring in the Strait of Juan de Fuca varies. The source of the FPs is generally the reported catch fishery index computed from CWT data in the annual exploitation rate analysis or the ratios of harvest rates computed from terminal area run reconstructions.

IDL (interdam loss). The IDL file contains stock-specific conversion factors for the Columbia River Summer, Columbia Upriver Bright, Spring Creek Tule, and Snake River Fall stocks provided each year by Columbia River fishery managers. The factors represent the fraction of the stock that can be accounted for after mainstem dam passage in the Columbia River; losses can be attributed to direct mortality at the various dams, mortality in the reservoirs between dams, fall-backs, tailrace spawning, and other factors. The inter-dam loss factor is equal to one minus the conversion factor.

IM (changes in incidental mortality rates). The IM file contains the incidental mortality rates by fishery for legal and sublegal fish that differ from those used in the base period due to alterations in gear, regulations, or fishery conduct.

MAT (maturity and adult equivalent factors). The MAT file has annual estimates of maturation rates and adult equivalent factors for 11 stocks (AKS, BON, CWF, FRL, GSH, LRW, ORC, RBH, RBT, SPR, URB, and WSH). These estimates replace the base period rates in the BSE file. The annual estimates are obtained from the annual exploitation rate analysis. The average value is used for years beyond the last year for which estimates are available (due to incomplete broods and the one year lag for completion of the annual exploitation rate analysis).

PNV (proportion non-vulnerable). A PNV file is created for each fishery for which a size limit change has occurred since the model base period. Each file contains age-specific estimates of the proportion of fish not vulnerable to the fishing gear or smaller in length than the minimum size limit. The PNVs were estimated from empirical size distribution data; in some instances independent surveys of encounter rates were used to adjust the PNV for age 2 fish to account for the proportion of the cohort that was not vulnerable to the fishing gear.

STK (stock). This file contains the stock and age-specific starting (base period) cohort sizes, the base period exploitation rates on the vulnerable cohort for each model fishery, maturation schedules, and adult equivalent factors. This file is updated if new stocks or fisheries are added, new CWT codes are used to represent distribution patterns of existing model stocks, or a re-estimation of base period data occurs. Modification of this file will result in a model different from that used in the negotiations (CLB 9812).

The calibration is controlled through a file designated with an OP7 extension.

Table 3-2. Methods used to forecast the abundance of stocks in the PSC Chinook Model. Externally provided forecast type codes are S = sibling; R = return rate; C = model internally estimated projection.

Model Stock	Forecast Type	Preseason Age-specific	Postseason Age-specific	Comments
Alaska South SE	C	-	Yes	Calibrated to escapement
North/Central BC	C	-	No	Calibrated to terminal run
WCVI Hatchery + Natural (RBH and RBT model stocks)	S	Yes	Yes	Robertson Creek Hatchery forecasts plus expansion for other WCVI stocks based on ratio of terminal run sizes
Upper Strait of Georgia	C	-	Partial	Calibrated to escapement
Lower Strait of Georgia Hatchery	C	-	Yes	Calibrated to escapement to GSH hatchery systems and Squamish River
Lower Strait of Georgia Natural	C	-	Yes	Calibrated to escapement to Cowichan and Nanaimo Rivers
Fraser Early	C	-	No	Calibrated to terminal run
Fraser Late	S	Yes	Yes	Combined forecasts of escapements for Harrison River and Chilliwack Hatchery
Nooksack Spring	C	Partial	No	No data since 1987
Nooksack Fall (Samish)	R	No	No	2001-2002 return rate
Snohomish Wild	R	No	No	Recruits per Spawner
Skagit Wild	S	Yes	Yes	Cohort return rate
Puget Sound Natural Fingerling	R	No	No	Calibrated to terminal run
Stillaguamish Wild	R	No	No	Recruits per Spawner
Puget Sound Hatchery Fingerling + Yearling	R	No	No	Age-specific forecasts not available for all components
Washington Coastal Wild	R	No	No	Calibrated to terminal run
Washington Coastal Hatchery	C	No	No	Calibrated to terminal run
Cowlitz Spring Hatchery	S	Yes	Yes	Prediction is to mouth of tributary streams.
Willamette River Hatchery	S	Yes	Yes	Prediction is to mouth of Willamette River
Columbia River Summer	S	No	No	Changed in 2001 to 5-year average
Spring Creek Hatchery	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Lower Bonneville Hatchery	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Upriver Brights	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Snake River Wild Fall	C	-	No	Calibrated to escapement to Lower Granite. External forecast is sometimes available.
Mid-Columbia River Bright	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Lewis River Wild	S	Yes	Yes	Run reconstruction used to estimate Columbia River mouth return
Oregon Coast	S	Yes	Yes	Weighted average age composition from four index rivers

3.1.2 Calibration Procedures

The objective of the calibration is to estimate stock and brood year specific environmental variant (EV) scalars. The calibration uses an iterative algorithm to estimate the EV scalars for each brood year and model stock to account for annual variability in natural mortality in the initial year of ocean residence. EV scalars are applied to production resulting from brood year escapements and the base period spawner-recruit function to produce the age 1 abundance by stock. Fishing impacts and natural mortalities are then applied through model processes. EVs also adjust for biases resulting from errors in the data or assumptions used to estimate the base period parameters for the spawner-recruit function.

EVs are estimated through the following steps for stocks calibrated to age-specific terminal run sizes:

(1) Predicted terminal runs are computed for each year using the input files discussed above and with values of all stock productivity scalars (EVs set equal to 1).

(2) The ratio of the observed terminal run and model predicted terminal run (SCBY) is computed for each brood year. For example, if the estimated and model predicted terminal runs for the 1979 brood were 900 and 1,500 age 3 fish in 1982, 4,000 and 4,500 age 4 fish in 1983, and 1,000 and 1,500 age 5 fish in 1983, the ratio would be computed as:

$$SC_{BY} = \frac{\sum_{a=Minage}^{Maxage} (ObservedTerminalRun)_a}{\sum_{a=Minage}^{Maxage} (ModelPredictedTerminalRun)_a}$$

Equation 3.1

$$SC_{BY} = \frac{900+4000+1000}{1500+4500+1500}$$

Equation 3.2

In the absence of age-specific estimates of the terminal run, the components are computed by multiplying the total terminal run by the model predictions of age composition.

(3) The EV for iteration n and brood year BY is computed as:

$$EV_{n,BY} = EV_{n-1,BY} * SC_{BY}$$

Equation 3.3

(4) Steps 1–3 are repeated until the absolute change in the EVs for all stocks is less than a predetermined tolerance level (currently set at 0.05). This value could be changed if required depending on the coarseness needed for resolution.

$$\left|\frac{EV_{n,BY} - EV_{n-1,BY}}{EV_{n-1}}\right| < 0.05$$

Equation 3.4

Several options for the calibration are provided in the OP7 control file. The options include the ability to control the brood years for which the EVs are estimated in each iteration and also the type of convergence criteria. For the 2011 calibration, EVs were estimated for all brood years in each iteration. Convergence was defined to occur when the absolute value of the difference in EVs between successive iterations did not exceed 0.05.

Stock-specific calibration options are specified in the FCS file and discussed below:

Minimum Number of Age Classes. Data for all age classes will not be available when the EVs are estimated for recent broods. Since considerable uncertainty may exist in a single data point, application of the calibration algorithm can be restricted to cases in which a specific minimum number of age classes are present.

Minimum Age. Considerable uncertainty often exists in the estimates of terminal runs or escapements for younger age classes, particularly age 2. The minimum age class to include in the calibration algorithm is specified in the FCS file.

Estimation of Age Composition. Age-specific estimates of the terminal run or escapement may not be available. An option is provided to estimate the age composition using base period maturation and exploitation rates.

The forecasts provided by the management agencies typically represent terminal runs or escapements without adjustments for changes in ocean fisheries. Since the forecasts implicitly include exploitation in pre-terminal fisheries, the expansion of the forecasts to total cohort size should be made using the average exploitation rate for the period of years in the forecast database.

The 2011 calibration was completed in two stages to facilitate computation of the average exploitation rates and incorporation of the agency forecasts. The Stage 1 calibration provided initial estimates of exploitation rate scalars for fishing years 1979 through 2010 using updated catch and escapement data through 2010. Average exploitation rate scalars ($\overline{FP}$) were then computed and used as input values for 2011 fisheries in the Stage 2 calibration, except for the WCVI and Fraser Late (FRL) stocks whose forecasts already account for changes in the ocean fisheries.

The $\overline{FP}$ for each model fishery were obtained from the Stage 1 calibration using the following formula:

$$\overline{FP}_{a,s,CT,f} = \frac{\sum_{CY=CY_{start}}^{CY_{end}} RT_{CY} * FP_{s,a,CY,f}}{(CY_{end} - CY_{start})}$$

Equation 3.5

The range of years used to compute the average FP varied between stocks and was fishery and age-specific. The input files used in the Stage 2 calibration were identical to those used in Stage 1 with two exceptions:

(1) the average exploitation rate scale factors for each fishery were inserted into the FP file for 2011; and
(2) the Stage 1 EVs were used as starting values for the Stage 2 calibration.

To determine the acceptability of a calibration by the CTC (i.e., whether an annual calibration is deemed final by the CTC), several results are examined:

1) accuracy of the reconstructed catches in the fisheries (these values will consistently differ from the actual catches if the calibration is not able to recreate exactly the actual catches in the years 1979 through 1984, the model years used prior to implementation of the ceiling algorithm);
2) accuracy of model predicted terminal runs or escapements relative to the data used for calibration of each stock;
3) comparison of model predicted age structure in terminal runs or escapements with data used for calibration (consistent biases in age structure are addressed by changing maturation rates);
4) patterns in the EVs compared with marine survival patterns generated by the annual exploitation rate analysis;
5) comparison of CWT and model estimates of fishery harvest rate indices ;
6) comparison of model estimates of mortality distributions for individual stocks to those generated from the annual CWT-based exploitation rate analysis; and
7) comparison of model estimated AIs with those AIs estimated by model CLB 9812.

Calibration usually involves an iterative process until a judgment is made by the CTC that an acceptable fit to all the data was achieved. This decision usually involves an inspection and trial-and-error process. The determination of whether or not further calibrations are necessary is based principally on the significance of deviations from observed or estimated values for stocks and fisheries most relevant to the issues to be evaluated and on the time constraints established for completion of the calibration.

3.2 Model Calibration Evaluation

Previous reports included evaluations of model performance for the most current model year, including comparisons of model estimates of catch and escapement/terminal run sizes to actual estimates of catch and escapement/terminal run size. This year, the model catches and stock escapements or terminal run sizes estimated by CLB 1106 were evaluated along with other aspects of the calibration. The calibration was distributed to the CTC membership for review

and subsequently approved. Correlations between model and CWT fishery indices are normally conducted, however while these comparisons were made as part of the normal calibration checking process, the results are not presented in this report.

Fishery mortality indices generated by CLB 1106 can be compared to the CWT-based exploitation rate analysis. Model and CWT-based fishery mortality indices use the same equation, but the former are derived from model estimates of catch for all model stocks instead of CWT recovery data from specific exploitation rate indicator stocks. The CWT fishery mortality indices are considered the most accurate. Two fishery indices are presented; reported catch and total mortality estimated using two methods. The first method is a ratio of means (ROM) and the second is the stratified proportional fishery index (SPFI; CTC 2009a). In general, the model results are closely associated with the CWT-based indices and changes in fishery exploitation rates.

The SEAK fishery mortality index from the model closely follows the trend of the CWT derived estimate from 1979 through 1989 for both landed catch and total mortality (Figure 3-1 and Figure 3-2). Between 1989 and 2000, the model estimate of both landed catch and total mortality indices is less than the CWT-derived estimate for most years but since 2001, the model estimate is higher. Since 1990, the model estimates also show less variability compared to the CWT-derived indices.

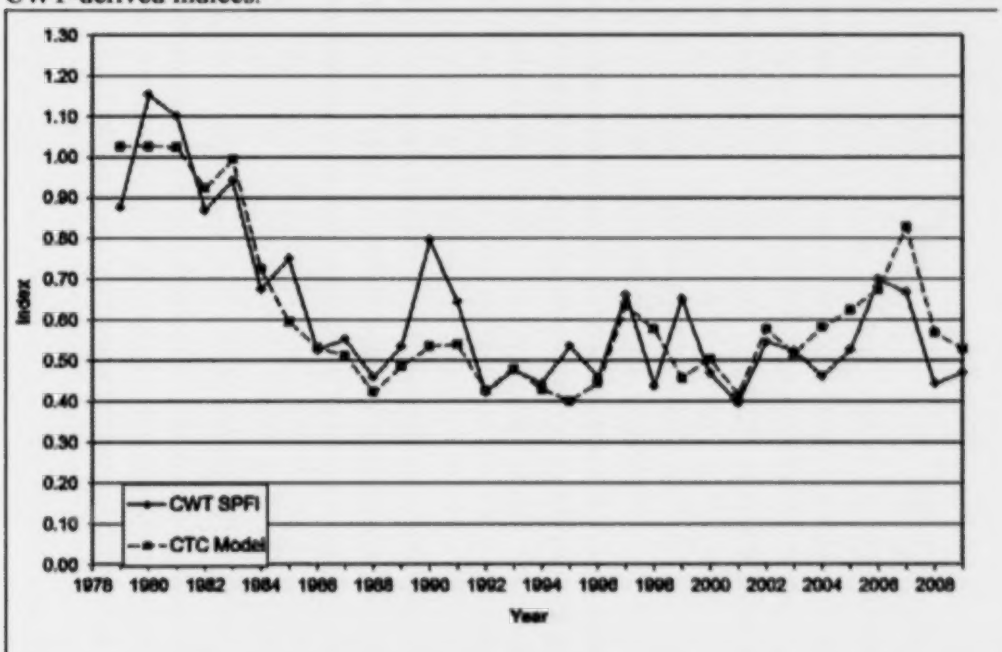

Figure 3-1. Estimated CWT based SPFI (through 2009) and model landed catch fishery indices (through 2009) for the SEAK troll fishery

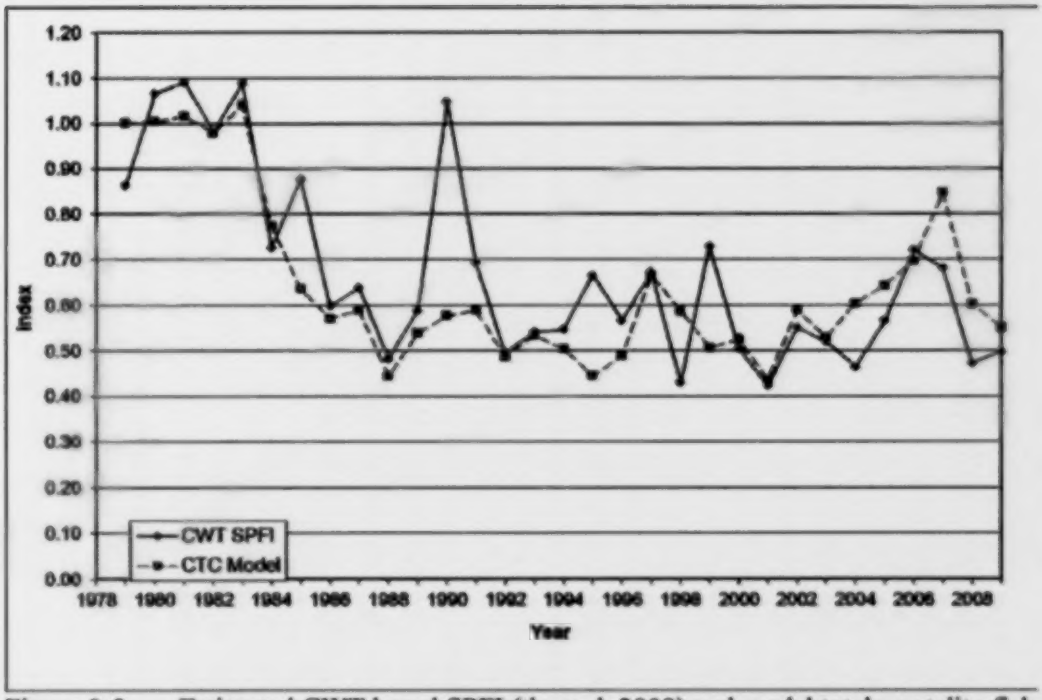

Figure 3-2. Estimated CWT based SPFI (through 2009) and model total mortality fishery indices (through 2009) for the SEAK troll fishery.

3.2.1 SPFI developed for NBC and WCVI AABM Fisheries

Based on the results that came out of the Harvest Rate Index Analysis in 2009 (CTC 2009a), a recommendation was made to use the SPFI estimator for the fishery index in all AABM fisheries. As a result, the CTC created the SPFI for WCVI and NBC fisheries and compared them to the model and CWT based ROM estimator of the fishery index for each of the fisheries analyzed (Figure 3-3 through Figure 3-6). It should be noted that an assessment of how the SPFI affects results in the calibration procedures was originally intended to be included in this report. This analysis has been deferred to the 2012 CLB and ER report.

The model-derived fishery mortality indices for NBC generally follow the same trend as CWT-derived indices (Figure 3-3 and Figure 3-4). However, since 1991, the model-based estimates have exceeded the CWT-derived estimates in all but three years for both landed catch and total mortality indices. Since 2001, this difference has been noticeably large.

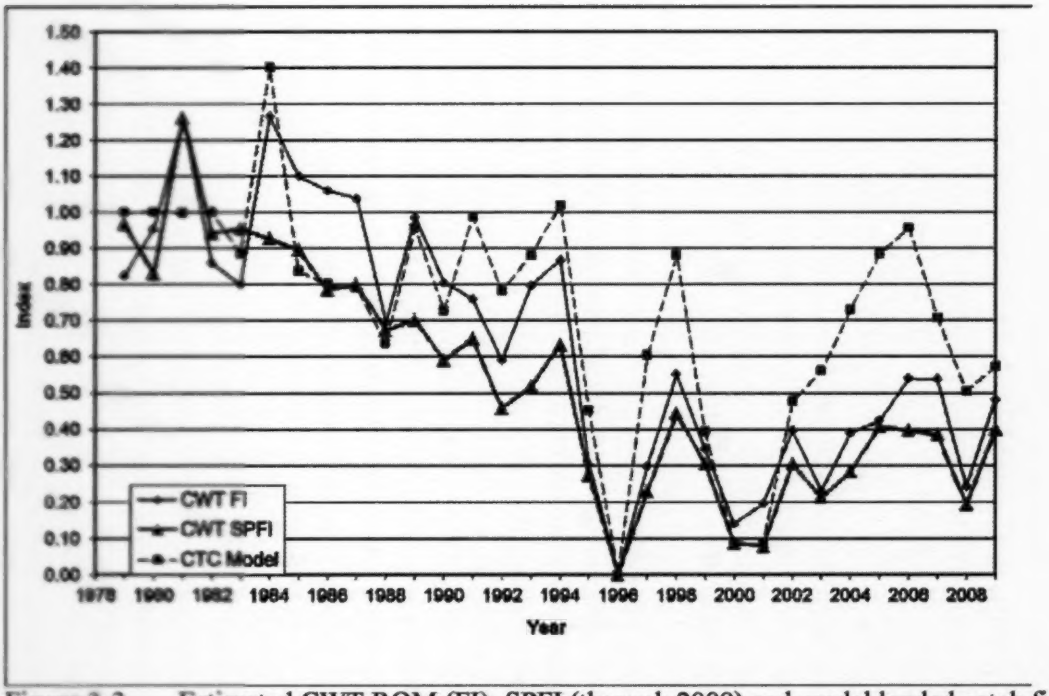

Figure 3-3. Estimated CWT ROM (FI), SPFI (through 2009) and model landed catch fishery indices (through 2009) for the NBC troll fishery.

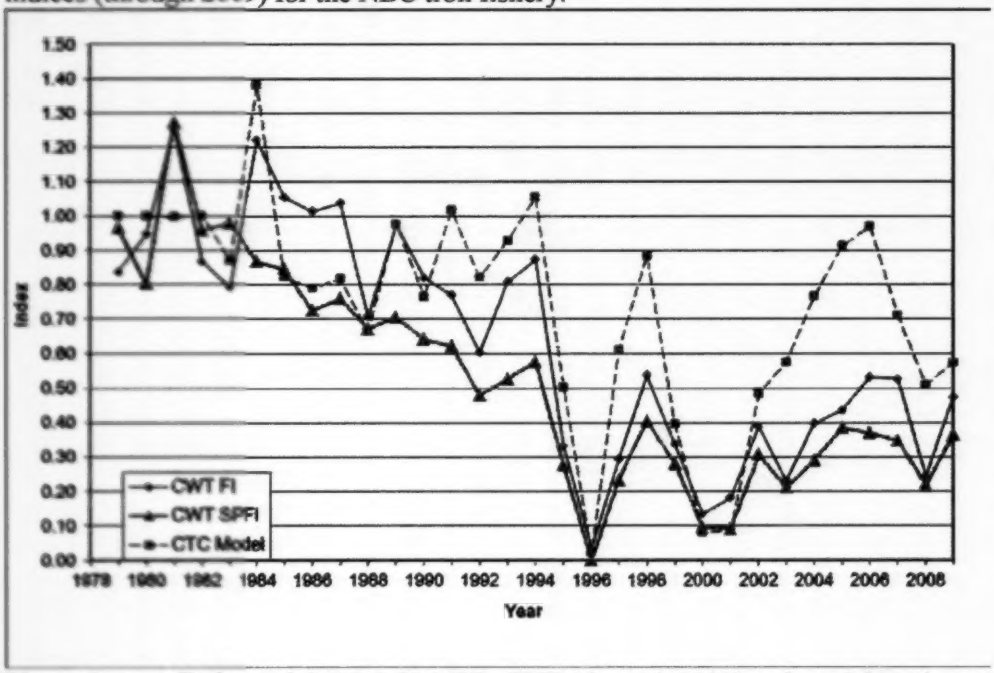

Figure 3-4. Estimated CWT ROM (FI), SPFI (through 2009) and model total mortality fishery indices (through 2009) for the NBC troll fishery.

Since the base period, the model-derived landed catch fishery index estimates and trends for the WCVI troll fishery have been similar to CWT based ROM FI estimates (Figure 3-5 and Figure 3-6). Starting in 2000, model and CWT based ROM estimates have diverged significantly for both landed catch and total mortality, with the CWT indices being consistently higher than model indices. To adjust for this the SPFI was developed that captures temporal and spatial changes in the fishery, and is now reported along with the ROM FI (Figure 3-5 and Figure 3-6).

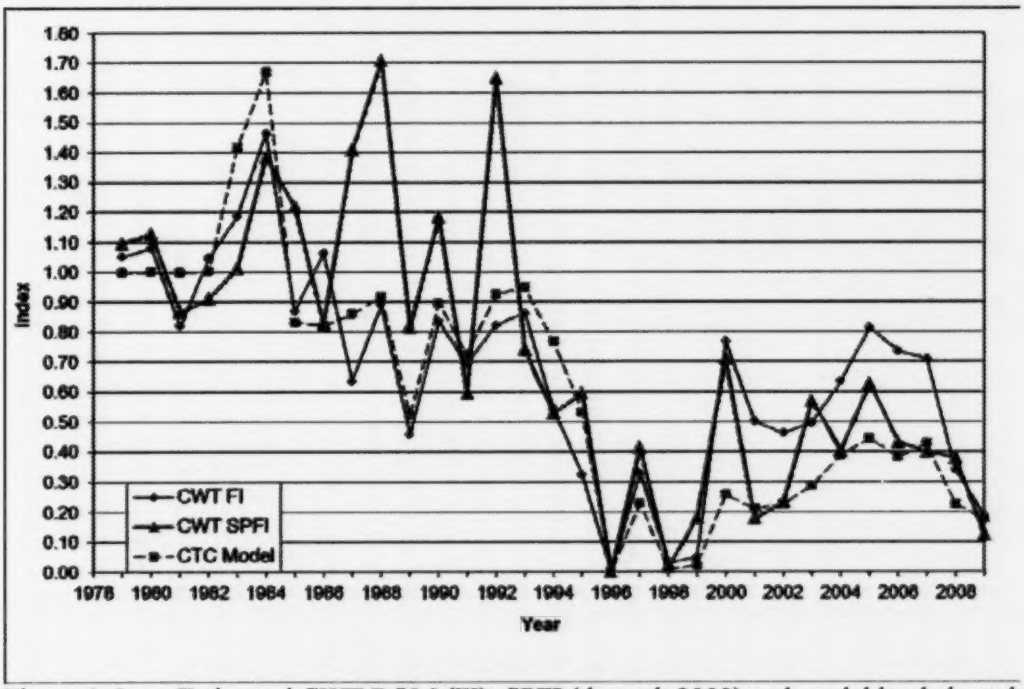

Figure 3-5. Estimated CWT ROM (FI), SPFI (through 2009) and model landed catch fishery indices (through 2009) for the WCVI troll fishery.

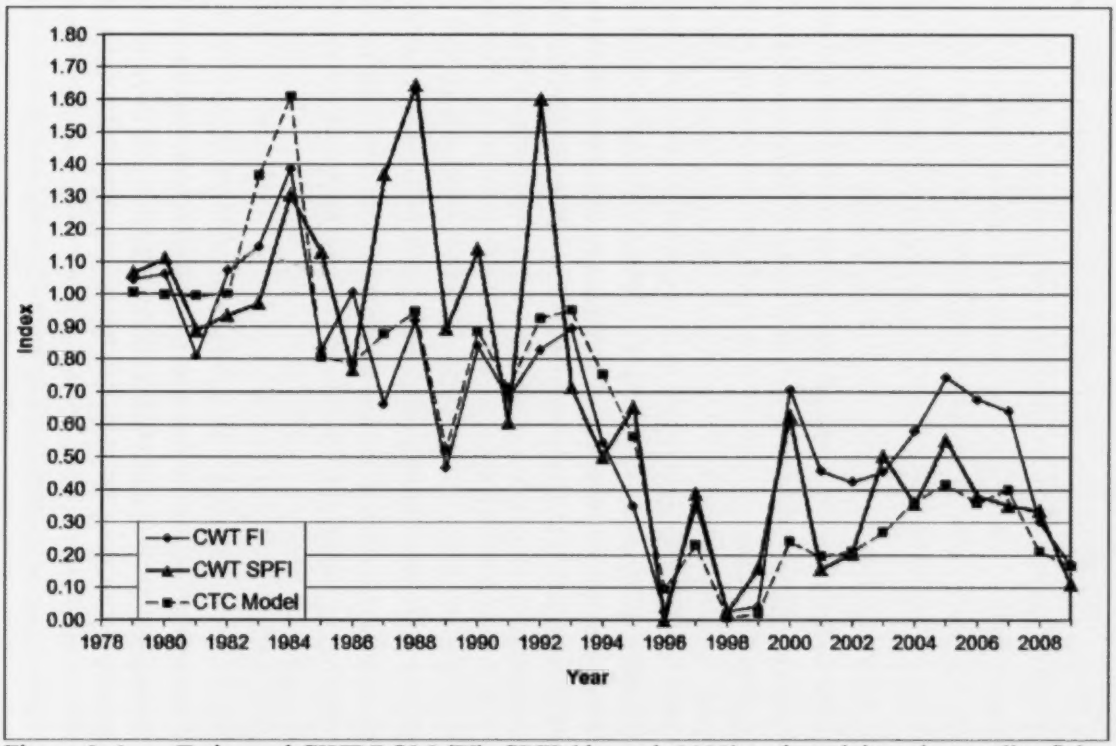

Figure 3-6. Estimated CWT ROM (FI), SPFI (through 2009) and model total mortality fishery indices (through 2009) for the WCVI troll fishery.

3.3 AABM Abundance Indices and Associated Catches

Beginning with the 1999 fishing season, the PST specified that the AABM fisheries are to be managed through the use of the preseason AIs, where specific allowable harvest corresponds to a given AI for each fishery. The preseason AIs that were used to establish harvest management targets are listed in Table 3-3. The 2011 preseason AI for the SEAK troll fishery is 1.69, for the NBC troll fishery it is 1.38, and for the WCVI troll fishery is 1.15. This is the third year of the 2008 Agreement that reduced catches and associated harvest rates in Southeast Alaska and West Coast of Vancouver Island AABM fisheries in response to conservation concerns coast wide. The NBC AABM fishery remained at the same allowable catch and harvest rates as the previous annex. In-season predictors may also be used for in-season adjustments to the preseason AI's for the SEAK troll fishery. However, the in-season AI has not provided a reliable estimate of the postseason AI due to its reliance on the preseason AI in the calculations and has not been used for in-season management action since 2001.

The postseason AI is a more accurate estimate of the abundance index for the AABM fisheries, and is used to compute a final allowable catch for each fishery to evaluate overage or underage of the landed catch relative to the harvest rate objective. Postseason AIs for 1999-2010 are also listed in Table 3-3.

Table 3-3. Abundance indices (AI) for 1999 to 2011 for the AABM troll fisheries (from CLB 1106).

	SEAK		NBC		WCVI	
Year	Preseason	Postseason	Preseason	Postseason	Preseason	Postseason
1999	1.15	1.12	1.12	0.97	0.60	0.50
2000	1.14	1.10	1.00	0.95	0.54	0.47
2001	1.14	1.29	1.02	1.22	0.66	0.68
2002	1.74	1.82	1.45	1.63	0.95	0.92
2003	1.79	2.17	1.48	1.90	0.85	1.10
2004	1.88	2.06	1.67	1.83	0.90	0.98
2005	2.05	1.90	1.69	1.65	0.88	0.84
2006	1.69	1.73	1.53	1.50	0.75	0.68
2007	1.60	1.34	1.35	1.10	0.67	0.57
2008	1.07	1.01	0.96	0.93	0.76	0.64
2009	1.33	1.20	1.10	1.07	0.72	0.61
2010	1.35	1.31	1.17	1.23	0.96	0.95
2011	1.69		1.38		1.15	

The 2008 PST Agreement specifies the allowable catch for various values of the AI for each fishery. Allowable catches for 1999-2008 were from Table 1 in the Chinook Annex to the 1999 PST Agreement. In the 2008 PST Agreement, the relationship between the AI and the allowable catch changed for SEAK and WCVI; thus the allowable catches since 2009 were derived from Table 1 of the Chinook Annex to the 2008 Agreement. The allowable treaty catch by fishery and year based on pre- and postseason AIs and the observed treaty catches are given in Table 3-.

Table 3-4. Observed catches and postseason allowable catches for 1999 to 2010, and preseason allowable catches for 1999 to 2011, for AABM fisheries.

PST Treaty Allowable and Observed Catches									
	SEAK (T, N, S)[1]			NBC (T, S)			WCVI (T, S)		
Year	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch	Pre-season Allowable Catch	Post-season Allowable Catch	Observed Catch
1999	192,800	184,200	198,842	145,600	126,100	75,127[2]	128,300	107,000	38,540[2]
2000	189,900	178,500	186,493	130,000	123,500	32,048[2]	115,500	86,200	88,617[2]
2001	189,900	250,300	186,919	132,600	158,900	43,751[2]	141,200	145,500	120,304[2]
2002	356,500	371,900	357,133	192,700	237,800	150,121[2]	203,200	196,800	157,886[2]
2003	366,100	439,600	380,152	197,100	277,200	194,162[2]	181,800	268,900	173,561[2]
2004	383,500	418,300	417,019 421,666[3]	243,600	267,000	243,306[2]	192,500	209,600	215,252[2]
2005	416,400	387,400	390,470	246,600	240,700	243,606	188,200	179,700	199,479
2006	346,800	354,500	362,402	223,200	200,000	215,985	160,400	145,500	145,485
2007	329,400	259,200	328,504	178,000	143,000	144,235	143,300	121,900	140,614
2008	170,000	152,800	173,040	124,800	120,900	95,647	162,600	136,900	145,726
2009	218,800	176,000	230,401	143,800	139,100	109,470	107,800	91,300	124,617
2010	221,800	215,800	231,591	152,100	160,400	136,613	143,700	142,300	139,047
2011	294,800			182,400			196,800		

[1] Nomenclature is T for troll, N for net, and S for sport.
[2] Updated with data from DFO (2009).
[3] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

3.3.1 Model estimates of stock composition of the AABM fishery abundances, 1979-2011

The majority of catches in each AABM fishery are often comprised of only a small subset of the 30 model stocks listed in Appendix A. Figure 3-7 through Figure 3-9 shows the relative abundance for each major stock (resulting from CLB 1106). In general, postseason AIs had a peak during the late 1980s (1987-1989) and another in 2003 and 2004.

The major model stocks contributing to the SEAK AIs are: Oregon Coastal, Columbia Upriver (URB) and Mid-Columbia Brights (MCB), WCVI Natural and Hatchery, North/Central BC, Alaska South Southeast, and Fraser Early (Figure 3-7). The "other" category is mainly Upper Georgia Strait, Columbia River Summers, and Willamette Springs.

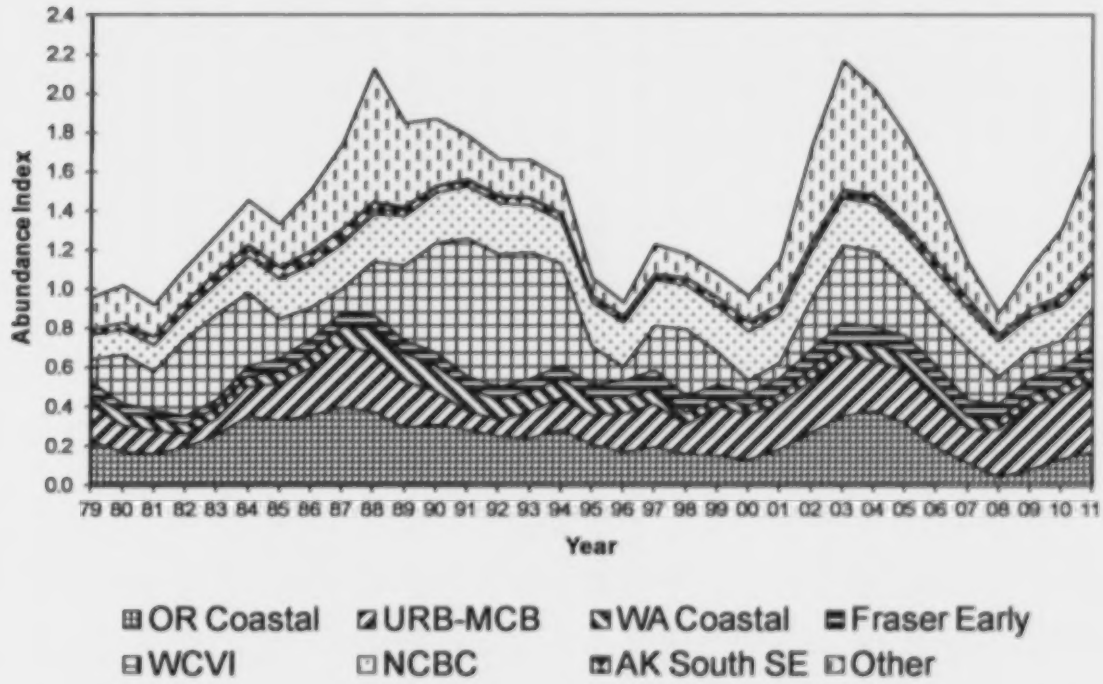

Figure 3-7. Annual stock composition of the abundance indices for the SEAK troll fishery for major model stocks from CLB 1106.

The major model stock groups contributing to the NBC AABM fishery AIs are: Oregon Coastal, URB and MCB, WCVI Natural and Hatchery, North/Central BC, Washington Coastal Wild and Hatchery, Upper and Lower Georgia Strait, and Fraser Early (Figure 3-8). The "other" category is mainly Columbia River Summers, Willamette Springs, and Alaska South Southeast.

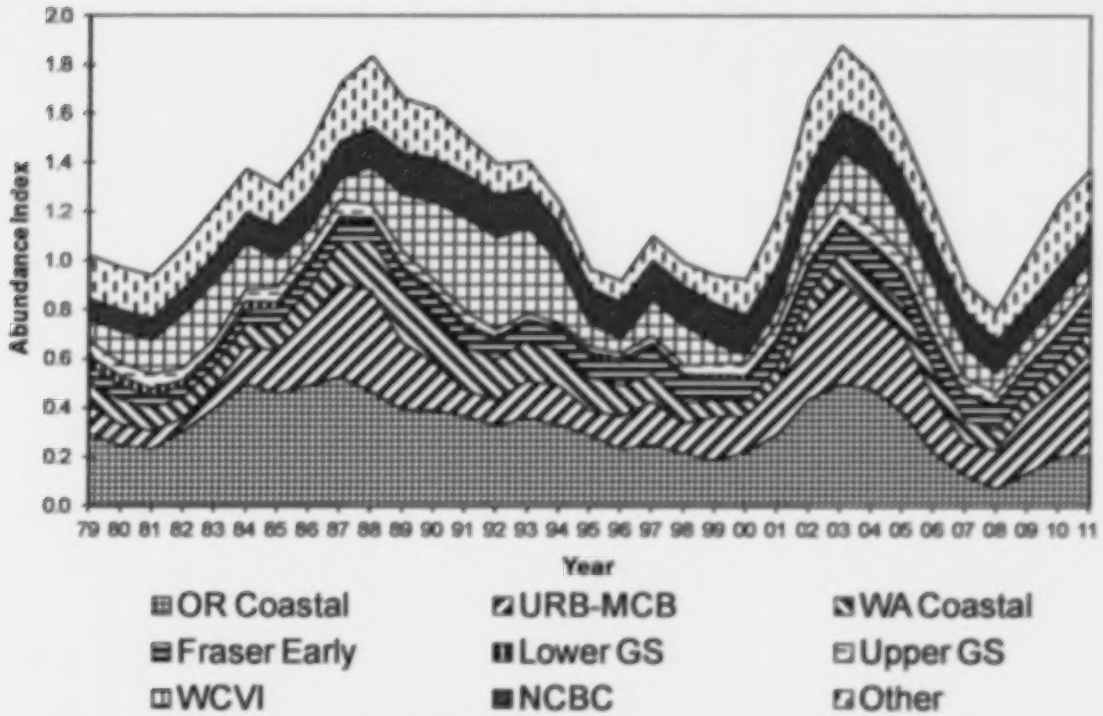

Figure 3-8. Annual stock composition of the abundance indices for the Northern BC troll fishery for major model stocks from CLB 1106.

The major model stock groups in the WCVI fishery are: CR Tules, Upriver Brights, Puget Sound, WCVI Natural and Hatchery, and Fraser Lates (Figure 3-9). The "Other" category is mainly Oregon Coast, Georgia Strait, and Washington Coastal.

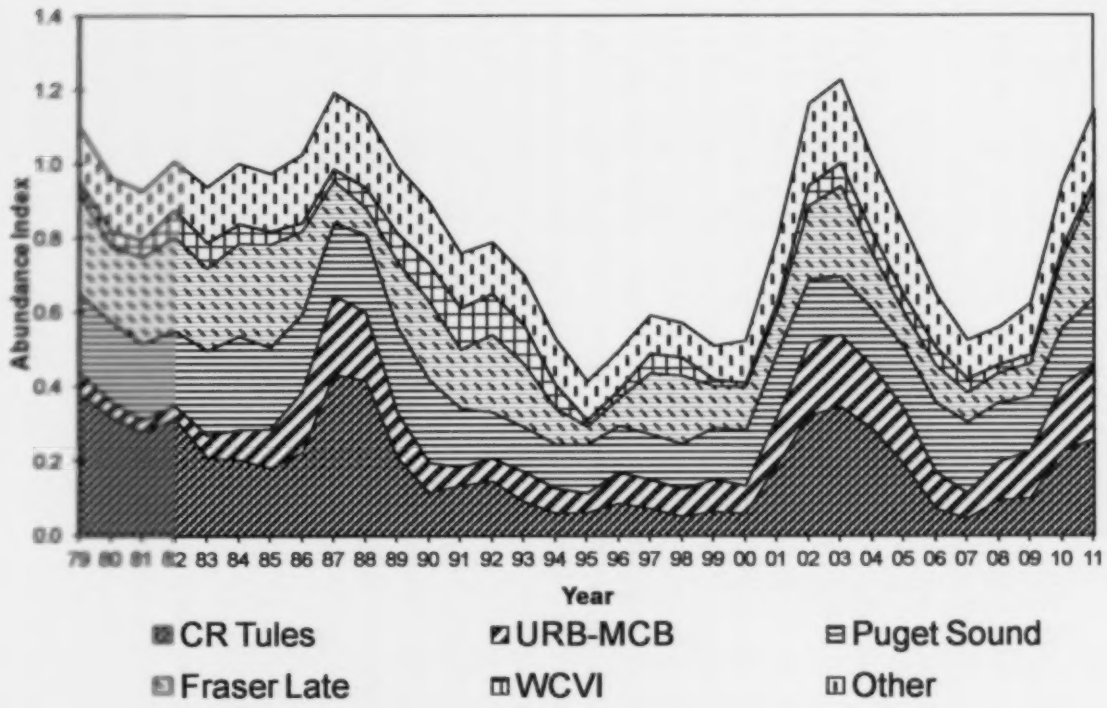

Figure 3-9. Annual stock composition of the abundance indices for the WCVI troll fishery for major model stocks from CLB 1106.

3.4 Overages and Underages

Until an approach for full implementation of overage/underage provisions has been developed and accepted by the PSC, the Commissioners have instructed the CTC to track and report overages and underages relative to agreed-upon harvest objectives.

3.4.1 AABM Fisheries

Table 3- shows the annual differences between the postseason allowable catches and the observed catches in AABM fisheries for 1999–2010, as well as the cumulative differences. In SEAK, the 2010 catch was 7.3% above the postseason allowable catch, and the cumulative differences were 1.6% above. In NBC, the 2010 catch was 14.8% below the preseason allowable catch and the cumulative differences were 23.3% below. In WCVI, the 2010 catch was 2.3% below and the cumulative differences were 7.8% below. The SEAK, NBC, and WCVI AABM fisheries have been over the preseason allowable catch 8, 3, and 7 of the last 12 years, respectively.

Table 3-5. Deviations in numbers of Chinook salmon and percentages from catch targets derived from the first postseason AI (Table 3-3) for Pacific Salmon Treaty AABM fisheries in 1999 to 2010.

	SEAK		NBC[1]		WCVI[1]	
Year	Number of Fish	Percent Difference	Number of Fish	Percent Difference	Number of Fish	Percent Difference
1999	14,642	+7.9%	-50,973	-40.4%	-68,460	-64.0%
2000	7,993	+4.5%	-91,452	-74.1%	2,417	+2.8%
2001	-63,381	-25.3%	-115,149	-72.5%	-25,196	-17.3%
2002	-14,767	-4.0%	-87,679	-36.9%	-38,914	-19.8%
2003	-59,448	-13.5%	-83,038	-30.0%	-95,339	-35.5%
2004	-1,281 3,366[2]	-0.3% +0.8%	-23,694	-8.9%	5,652	+2.7%
2005	3,070	+0.8%	2,906	+1.2%	19,779	+11.0%
2006	7,902	+2.2%	15,985	+8.0%	-15	+0.0%
2007	69,304	+26.7%	1,235	+0.9%	18,714	+15.4%
2008	20,240	+13.2%	-25,253	-20.9%	8,826	+6.4%
2009	54,401	+30.9%	-29,630	-21.3%	33,317	+36.5%
2010	15,791	+7.3%	-23,787	-14.8%	-3,253	-2.3%
Cum.	54,466 59,113	+1.6% +1.7%[2]	-510,529	-23.3%	-142,472	-7.8%

[1] 1999-2004 updated with data from DFO (2009).

[2] The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.

3.5 ISBM Indices by Stock

For ISBM fisheries, the 2008 PST Agreement specifies that Canada and the United States will reduce base period exploitation rates on specified stocks by 36.5% and 40%, equivalent to ISBM indices of 63.5% and 60% percent, respectively. This requirement is referred to as the 'general obligation' and does not apply to stocks that achieve their CTC agreed escapement goal. Estimated ISBM fishery indices are shown in

Table 3-6 for Canadian fisheries and Table 3-7 for U.S. fisheries. Both tables present 2009 preseason indices as predicted by the 2009 Chinook Model (clb0907) and the 2009 post-season indices as estimated by the 2011 Chinook model (clb1106), and the 2011 CWT analysis, as well as the 2011 preseason indices as predicted by the 2011 Chinook Model (clb1106). The 2009 post-season indices as estimated by the 2011 Chinook model (clb1106) are presented in Tables 3-6 and 3-7 to facilitate comparison of the estimates from the Chinook Model and CWT analysis. The agreement specifies that the indices for postseason assessment be assessed using the CWT-based estimates; 2009 is the most recent analysis available. CWT-based indices for 1999-2009 and model-based indices for 1999-2011 are presented in Appendix B.

Table 3-6. Canadian 2009 ISBM indices based on 2009 and 2011 PSC Chinook Model, 2011 CWT analysis and the 2011 indices predicted from the 2011 PSC Chinook Model.

		Canadian ISBM Indices			
Stock Group	Escapement Indicator Stock	2009 Model (clb0907) Indices for 2011	2011 Model (clb1106) Indices for 2009	CWT Indices for 2009	2011 Model (clb1106) Indices for 2011
Lower Strait of Georgia	Cowichan Nanaimo	0.495 [10]	0.468 [6]	0.400 [4] NA [1,5]	0.367 [6]
Fraser Late	Harrison River [2]	0.245	0.211	0.058 [7]	0.193
North Puget Sound Natural Springs	Nooksack Skagit	0.988 0.988	0.15 0.150	0.106 NA	0.732 0.731
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.128	0.187	0.247	0.578
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	0.094	0.115	NA	0.222
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	0.137	0.52	0.464 [8]	0.491
Puget Sound Natural Summer / Falls	Skagit Stillaguamish Snohomish Lake Washington Green River	1.097 1.123 1.098 0.918 [9] 0.919 [9]	0.177 0.315 0.711 0.217 0.217	NA 0.252 NA NA 0.208	0.745 0.793 0.744 0.752 [9] 0.756 [9]
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	0.224	0.152	NA	0.598
Washington Coastal Fall Naturals [3]	Hoko, Grays Harbor, Queets [2], Hoh [2], Quillayute [2]	0.328	0.15	NA	0.332
Columbia River Falls [3]	Upriver Brights [2] Deschutes Lewis [2]	0.517 0.517 0.832	0.107 0.108 0.044	NA NA NA	0.620 0.620 0.994
Columbia R Summers [3]	Mid-Columbia Summers [2]	0.285	0.102	NA	0.359
Far North Migrating OR Coastal Falls [3]	Nehalem [2], Siletz [2], Siuslaw [2]	0.543	0.047	NA	0.529

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] Stock or stock group with a CTC agreed escapement goal.
[3] Stock group listed in Annex 4, Chapter 3, Attachment V.
[4] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates

are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook salmon.

[5] Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook salmon. Until these problems are resolved, indices for this stock will not be reported.

[6] Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.

[7] The terminal sport harvest rates for Chilliwack Hatchery Chinook salmon, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population.

[8] An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. A more extended review of the indices for WCVI Chinook salmon will be carried out to determine whether they adequately represent impacts on the WCVI wild aggregate.

[9] For Canadian ISBM fisheries, Lake Washington and Green the same distribution and index value are assumed.

Table 3-7. U.S. 2009 ISBM indices based on 2009 and 2011 PSC Chinook Model, 2011 CWT analysis and the 2011 indices predicted from the 2011 PSC Chinook Model.

		U.S. ISBM Indices			
Stock Group	Escapement Indicator Stock	2009 Model (clb0907) Indices for 2009	2011 Model (clb1106) Indices for 2009	CWT Indices for 2009	2011 Model (clb1106) Indices for 2011
Washington Coastal Fall Naturals	Hoko	0.284	0.330	NA [1]	0.419
	Grays Harbor	0.404	0.651	0.7	0.549
	Queets [4]	0.508	0.314	0.45	0.327
	Hoh [4]	0.981	1.014	1.22	0.760
	Quillayute [4]	0.881	1.615	1.97	1.058
Columbia River Falls	Upriver Brights [4]	0.798	1.008	2.79	0.841
	Deschutes [4]	0.461	1.974	2.36	1.044
	Lewis [4]	0.47	0.523	0.14	0.426
Puget Sound Natural Summer / Falls	Skagit	0.292	0.216	NA	0.789
	Stillaguamish	0.446	0.049	0.2	0.169
	Snohomish	0.202	0.112	NA	0.211
	Lake Washington	0.768	0.202	NA	0.387
	Green R	0.555	0.334	0.29	0.236
Fraser Late	Harrison River [4]	0.41	0.315	0.15 [5]	0.497
Columbia R Summers	Mid-Columbia Summers [4]	1.236	1.567	1.310	1.398
Far North Migrating OR Coastal Falls	Nehalem [4]	2.003	0.089	0.59	2.146
	Siletz [4]	1.217	0.548	0.73	0.643
	Siuslaw [4]	1.632	0.934	1.07	1.427
North Puget Sound Natural Springs	Nooksack	0.107	0.076	0.52	0.484
	Skagit	0.143	0.195	NA	0.271
Lower Strait of Georgia [3]	Cowichan,	0.367	0.339	5.14	0.367
	Nanaimo	0. 367	NA	NA	NA
Upper Strait of Georgia [3]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NC [2]	NC [2]	NC [2]	NC [2]
Fraser Early (spring and summers) [3]	Upper Fraser, Mid Fraser, Thompson	0.156	0.053	NA	0.239
West Coast Vancouver Island Falls [3]	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	0.146	0.359	NA	0.378
North / Central B. C. [3]	Yakoun, Nass, Skeena, Area 8	NC [2]	NC [2]	NC [2]	NC [2]

[1] Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
[2] NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
[3] Stock group listed in Annex 4, Chapter 3, Attachment IV.
[4] Stock with a CTC agreed escapement goal.
[5] The US CWT based indices for Fraser Late from 2005 onward do not accurately reflect the impacts on the natural stock because a considerable proportion of the recoveries in the US fisheries have occurred in mark-selective fisheries in which only clipped hatchery-origin fish are retained. The US indices since 2005 indicate greater impacts than would have occurred on the natural stocks and are no longer being reported.

3.5.1 CWT-based Indices in 2009

Figure 3-10 and Figure 3-11 show the historical ISBM indices based on CWT recoveries from 1999 to 2009. The ISBM fishery restrictions do not apply to stocks meeting the escapement goals, however should the escapement goal not be met, the general obligation needs to be achieved.

Canadian ISBM indices for 2009, estimated from the CWT data were reduced more than required under the agreement for the five indices that could be calculated.

We identified several inconsistencies in the way these indices had been computed in the past, as noted above (Table 3-6, footnotes 4-9). Most inconsistencies were between model versus CWT exploitation rate based methods of calculating ISBM indices. In the case of Lower Georgia Strait, Nanaimo was dropped from the CWT-based index because of concern about the method of estimating the terminal fishery rates. Nanaimo and Cowichan stocks are no longer reported separately in the model-based index because a way to split the two stocks in the base period has not yet been developed.

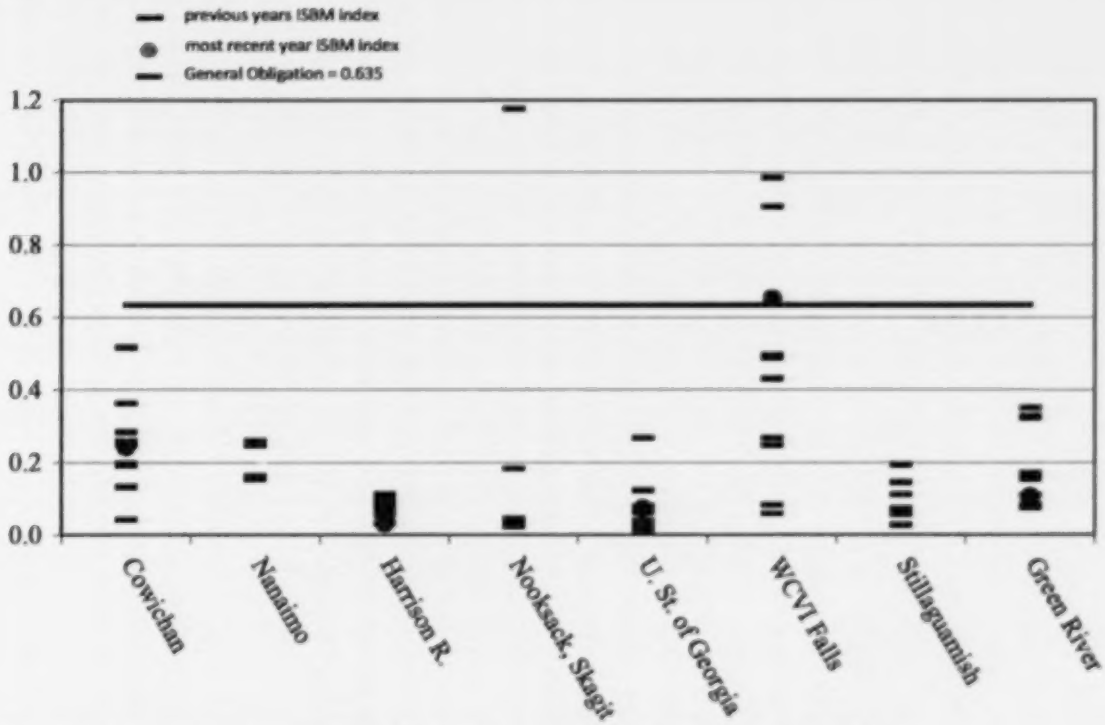

Figure 3-10. CWT-based ISBM indices for Canadian fisheries for 1999-2009.

Seven of the 16 U.S. ISBM indices for the CWT-based estimates for 2009 were reduced more than required. The other nine U.S. CWT-based ISBM indices exceeded 0.60. All of these stocks (except for Siletz) met or exceeded their respective escapement goals, and thus are exempted from the general obligation.

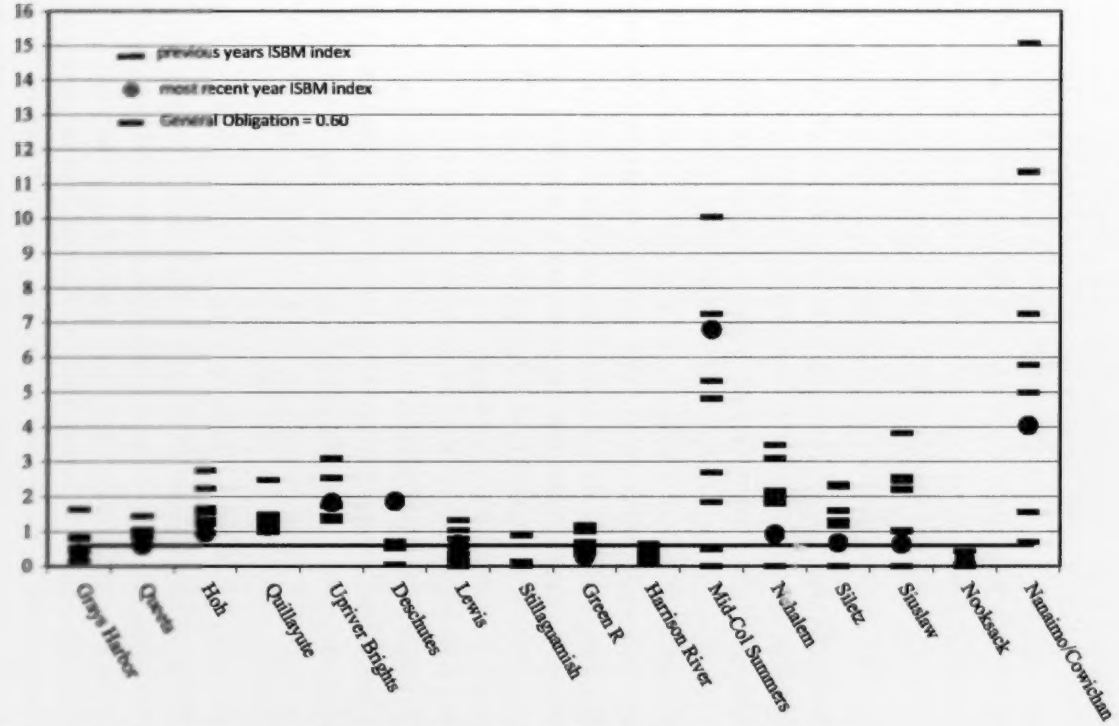

Figure 3-11. CWT-based ISBM indices for U.S. fisheries for 1999-2009.

3.5.2 Predicted ISBM Indices for 2011

Eight of the 19 ISBM indices for Canada are predicted to exceed the allowable value of 0.635 for Canadian ISBM fisheries in 2011 based on outputs from calibration 1106 (Table 3-6). Seven of these eight stocks are Puget Sound Natural Summer/Fall stocks, and do not have CTC-accepted management objectives, and the other stock, the Lewis River, exceeded its CTC escapement goal in 2010.

Nine of the 23 U.S. ISBM indices are predicted to be above the allowable limit of 0.60 for U.S. ISBM fisheries in 2011 based on calibration 1106 (Table 5). All but Skagit (which has exploitation rate objectives) have CTC agreed escapement goals: Hoh, Quillayute, Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, all but Nehalem were above their goals in 2010.

3.6 General Forecast Methods

For those stocks with externally provided forecasts of abundance in 2011, management agencies used two general methods to predict terminal returns or escapements:

Sibling Models. Empirical relationships between abundance (commonly measured as terminal run size) of age a fish in calendar year CY and the comparable abundance of age a+1 fish in year CY+1 are used to predict abundance in 2011 from data collected in previous years (forecast type S in Table 3-2).

Average Return Rate Models. Return rates of adults by age from smolts or parents are averaged over past brood years, then these averages are used to discount abundance of smolts or parents for brood years that will be exploited in 2011 (forecast type R in Table 3-2).

3.6.1 Agency Stock Forecast Used In The Model

A summary of model-produced and agency-produced forecasts from 1999-2011 is shown in Table 3-8. The relationship between the model indicator stocks and exploitation rate indicator stocks and PST Annex stocks are shown in Appendix A. A major factor influencing how well the model can predict Chinook salmon abundance in AABM fisheries is how well the model can predict the returns of Chinook salmon (in terms of ocean escapement or spawning escapement) in the forecast year. During model calibration, agency forecasts are input to the model for all model stocks for which model forecasts are available. Thus, for model stocks with external forecasts, the variation between model forecasts and actual returns can be broken into two parts: the ability of the model to match the agency forecasts used as inputs to the model, and the ability of the agency forecasts to accurately predict the actual return of Chinook salmon in the upcoming year. In Table 3-8 the column labeled 'Model Fcst/Agency Fcst' shows the percentage deviation of the model prediction from the agency forecast. The column labeled 'Agency Fcst/Postseason' shows the percentage deviation of the agency forecast from the actual return. The column labeled 'Model Fcst/Postseason' shows the percentage deviation of the model prediction of the return from the actual return. A value of 100% would indicate that the predicted and actual values were the same.

The model forecasts are similar to the agency forecasts on average. This result is strongly influenced by the incorporation of the agency forecasts into the model calibration procedure. The mean absolute percent error (MAPE) of all 'Model Fcst/Agency Fcst' is 11.9%, and the average percent error is 1.4%. For all agency forecasts, the MAPE is 36.5% and the average percent error is -7.8% with respect to the postseason estimate. For model forecasts, the MAPE is 36.9% with respect to the postseason estimate, whereas, the average percent error is -8.8%.

The effect of the error in predicting terminal returns or escapement on the AABM abundance indices varies between fisheries and stocks. There is no clear directional bias of this error. For example, a small stock (small in ocean abundance terms) that is over or under predicted will generally not have a large effect on a fishery's abundance index. Errors in predicting a large stock may or may not affect a fishery's index, depending on the contribution of that stock to the fishery in question (see Appendix F for the model estimated stock composition of selected ocean fisheries). In addition, since the abundance index is an index, rather than an absolute measure of abundance, over or under prediction of a stock's terminal return or escapement would not affect the abundance index of a fishery if the bias in the prediction is consistent over all years in the index, including the base period.

Table 3-8. Preseason forecasts and postseason estimates for PSC model stocks, 1999-2010.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
AKS[1]	1999	11,866	n/a	12,274	n/a	n/a	97%
(Alaska SSE)	2000	18,967	n/a	16,196	n/a	n/a	117%
	2001	22,130	n/a	21,850	n/a	n/a	101%
	2002	15,650	n/a	18,790	n/a	n/a	83%
	2003	22,316	n/a	14,676	n/a	n/a	152%
	2004	11,880	n/a	17,414	n/a	n/a	68%
	2005	25,204	n/a	16,102	n/a	n/a	157%
	2006	17,988	n/a	20,866	n/a	n/a	86%
	2007	25,653	n/a	15,095	n/a	n/a	170%
	2008	14,626	n/a	13,865	n/a	n/a	105%
	2009	14,332	n/a	11,296	n/a	n/a	127%
	2010	16,445	n/a	16,194	n/a	n/a	102%
	2011	17,946	n/a		n/a		
	AVG.				n/a	n/a	114%
NTH[2]	1999	149,593	n/a	154,294	n/a	n/a	97%
(North/	2000	159,818	n/a	188,482	n/a	n/a	85%
Central BC)	2001	189,088	n/a	214,541	n/a	n/a	88%
	2002	228,073	n/a	150,870	n/a	n/a	151%
	2003	161,995	n/a	170,410	n/a	n/a	95%
	2004	171,070	n/a	158,967	n/a	n/a	108%
	2005	154,552	n/a	139,303	n/a	n/a	111%
	2006	133,627	n/a	159,959	n/a	n/a	84%
	2007	156,017	n/a	126,159	n/a	n/a	124%
	2008	131,262	n/a	113,642	n/a	n/a	116%
	2009	113,024	n/a	126,605	n/a	n/a	89%
	2010	136,998	n/a	113,361	n/a	n/a	121%
	2011	115,399			n/a		
	AVG.				n/a	n/a	106%
RBH+RBT[2]	1999	78,074	68,400	101,683	114%	67%	77%
(WCVI	2000	21,040	15,040	37,047	140%	41%	57%
Hatchery +	2001	33,702	30,633	87,004	110%	35%	39%
Natural)	2002	128,068	109,882	167,731	117%	66%	76%
	2003	111,430	105,801	215,346	105%	49%	52%
	2004	166,548	144,180	257,517	116%	56%	65%
	2005	244,768	218,840	156,837	112%	140%	156%
	2006	152,662	138,878	197,097	110%	70%	77%
	2007	151,925	117,321	118,082	129%	99%	129%
	2008	67,347	60,255	101,096	112%	60%	67%
	2009	63,200	58,382	88,429	108%	66%	71%
	2010	75,748	61,586	92,534	123%	67%	82%
	2011	86,660	74,708		116%		
	AVG.				116%	68%	79%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
GSQ[1] (Upper Strait of Georgia)	1999	16,472	n/a	16,140	n/a	n/a	102%
	2000	19,452	n/a	22,603	n/a	n/a	86%
	2001	25,828	n/a	30,219	n/a	n/a	85%
	2002	41,492	n/a	30,675	n/a	n/a	135%
	2003	36,882	n/a	31,059	n/a	n/a	119%
	2004	39,766	n/a	25,061	n/a	n/a	159%
	2005	38,798	n/a	25,309	n/a	n/a	153%
	2006	39,577	n/a	29,663	n/a	n/a	133%
	2007	41,711	n/a	23,790	n/a	n/a	175%
	2008	30,065	n/a	17,274	n/a	n/a	174%
	2009	26,131	n/a	19,923	n/a	n/a	131%
	2010	26,624	n/a	18,523	n/a	n/a	144%
	2011	14,585	n/a		n/a		
	AVG.				n/a	n/a	133%
GSH[2] (Lower Strait of Georgia Hatchery)	1999	23,648	n/a	25,258	n/a	n/a	94%
	2000	19,165	n/a	23,422	n/a	n/a	82%
	2001	17,547	n/a	34,775	n/a	n/a	50%
	2002	25,051	n/a	23,557	n/a	n/a	106%
	2003	22,409	n/a	24,084	n/a	n/a	93%
	2004	16,573	n/a	22,269	n/a	n/a	74%
	2005	21,046	n/a	28,226	n/a	n/a	75%
	2006	22,937	n/a	22,756	n/a	n/a	101%
	2007	24,378	n/a	13,155	n/a	n/a	185%
	2008	11,765	n/a	13,410	n/a	n/a	88%
	2009	7,371	n/a	14,398	n/a	n/a	51%
	2010	7,999	n/a	14,360	n/a	n/a	56%
	2011	9,159	n/a		n/a		
	AVG.				n/a	n/a	88%
GST[1] (Lower Strait of Georgia Natural)	1999	14,737	n/a	8,715	n/a	n/a	169%
	2000	11,094	n/a	8,223	n/a	n/a	135%
	2001	7,955	n/a	8,569	n/a	n/a	93%
	2002	8,833	n/a	7,812	n/a	n/a	113%
	2003	8,088	n/a	5,903	n/a	n/a	137%
	2004	5,157	n/a	3,642	n/a	n/a	142%
	2005	4,459	n/a	4,870	n/a	n/a	92%
	2006	4,945	n/a	4,880	n/a	n/a	101%
	2007	7,782	n/a	4,778	n/a	n/a	163%
	2008	6,823	n/a	4,926	n/a	n/a	139%
	2009	5,691	n/a	2,966	n/a	n/a	192%
	2010	2,972	n/a	5,676	n/a	n/a	52%
	2011	6,222	n/a		n/a		
	AVG.				n/a	n/a	127%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
FRE[2]	1999	163,342	n/a	105,473	n/a	n/a	155%
(Fraser Early)	2000	118,058	n/a	116,233	n/a	n/a	102%
	2001	122,333	n/a	154,175	n/a	n/a	79%
	2002	170,232	n/a	186,827	n/a	n/a	91%
	2003	175,919	n/a	188,183	n/a	n/a	93%
	2004	185,450	n/a	141,029	n/a	n/a	131%
	2005	151,591	n/a	134,641	n/a	n/a	113%
	2006	186,279	n/a	203,212	n/a	n/a	92%
	2007	196,060	n/a	110,884	n/a	n/a	177%
	2008	128,347	n/a	148,284	n/a	n/a	87%
	2009	129,707	n/a	134,307	n/a	n/a	97%
	2010	144,214	n/a	171,819	n/a	n/a	84%
	2011	148,766	n/a		n/a		
	AVG.				n/a	n/a	108%
FRL[1]	1999	144,316	82,650	184,099	175%	45%	78%
(Fraser Late)	2000	187,970	222,400	120,744	85%	184%	156%
	2001	141,745	131,800	141,196	108%	93%	100%
	2002	132,946	160,100	165,245	83%	97%	80%
	2003	127,144	114,780	313,929	111%	37%	41%
	2004	104,597	97,227	196,396	108%	50%	53%
	2005	121,315	108,061	124,704	112%	87%	97%
	2006	116,263	116,682	108,639	100%	107%	107%
	2007	122,402	107,311	105,385	114%	102%	116%
	2008	125,100	116,038	88,012	108%	132%	142%
	2009	119,886	91,391	87,365	131%	105%	137%
	2010	119,953	118,891	201,334	101%	59%	60%
	2011	179,875	284,604		63%		
	AVG.				108%	91%	97%
NKS[1]	1999	1068	n/a	251	n/a	n/a	425%
(Nooksack	2000	834	n/a	444	n/a	n/a	188%
Spring)	2001	982	n/a	531	n/a	n/a	185%
	2002	1216	n/a	513	n/a	n/a	237%
	2003	1301	n/a	414	n/a	n/a	314%
	2004	1708	n/a	448	n/a	n/a	381%
	2005	1549	n/a	330	n/a	n/a	469%
	2006	485	677	630	72%	107%	77%
	2007	582	575	334	101%	172%	174%
	2008	371	378	351	98%	108%	106%
	2009	336	315	291	107%	108%	115%
	2010	374	390	228	96%	171%	164%
	2011	259	309		84%		
	AVG.				92%	133%	236%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
NKF[2] (Nooksack/ Samish Fall Fingerling)	1999	27,472	27,000	41,186	102%	66%	67%
	2000	21,277	19,000	32,646	112%	58%	65%
	2001	33,974	36,450	64,685	93%	56%	53%
	2002	50,361	54,420	54,302	93%	100%	93%
	2003	48,259	45,750	30,047	105%	152%	161%
	2004	37,980	34,200	17,913	111%	191%	212%
	2005	19,808	19,523	15,872	101%	123%	125%
	2006	16,854	16,899	30,591	100%	55%	55%
	2007	22,086	18,834	25,895	117%	73%	85%
	2008	34,392	35,271	29,126	98%	121%	118%
	2009	20,813	23,014	21,548	90%	107%	97%
	2010	32,061	32,627	n/a	98%	n/a	n/a
	2011	30,839	37,902		81%		
	AVG.				102%	100%	103%
SNO[2] (Snohomish Wild)	1999	5,823	5,600	4,832	104%	116%	121%
	2000	5,997	6,000	6,116	100%	98%	98%
	2001	5,876	5,760	5,414	102%	106%	109%
	2002	6,524	6,700	7,267	97%	92%	90%
	2003	6,033	5,450	5,571	111%	98%	108%
	2004	12,845	15,700	10,700	82%	147%	120%
	2005	10,161	n/a	4,611	n/a	n/a	220%
	2006	7,831	8,729	8,438	90%	103%	93%
	2007	11,153	12,289	4,005	91%	307%	278%
	2008	6,103	6,541	8,490	93%	77%	72%
	2009	7,558	8410	2,391	90%	352%	316%
	2010	8,050	9,858	4,691	82%	210%	171%
	2011	7,437	7,600		98%		
	AVG.				96%	155%	150%
SKG[2] (Skagit Summer/ Fall Wild)	1999	9,107	7,600	5,139	120%	148%	177%
	2000	6,988	7,300	16,266	96%	45%	43%
	2001	9,064	9,184	14,193	99%	65%	64%
	2002	12,635	13,455	18,114	94%	74%	70%
	2003	11,906	11,348	10,583	105%	107%	113%
	2004	18,761	20,359	22,144	92%	92%	85%
	2005	16,220	19,493	22,784	83%	86%	71%
	2006	22,765	21,811	21,246	104%	103%	107%
	2007	12,324	14,252	12,646	86%	113%	97%
	2008	18,598	18,302	14,254	102%	128%	130%
	2009	19,607	20,400	10,989	96%	186%	178%
	2010	9,894	11,853	9,060	83%	131%	109%
	2011	11,210	13,044		86%		
	AVG.				97%	106%	104%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Forecasted Return	Model Fore/ Agency Fore	Agency Fore/ Preseason	Model Fore/ Preseason
PSN[2] (Puget Sound Natural)	1999	28,800	28,400	22,974	101%	124%	125%
	2000	15,364	10,000	20,701	154%	48%	74%
	2001	19,938	18,900	38,387	105%	49%	52%
	2002	20,008	19,801	30,166	101%	66%	66%
	2003	25,743	26,600	19,445	97%	137%	132%
	2004	24,616	23,200	34,052	106%	68%	72%
	2005	22,208	17,715	13,659	125%	130%	163%
	2006	20,207	21,301	26,048	95%	82%	78%
	2007	18,964	17,014	22,788	111%	75%	83%
	2008	23,118	21,100	23,182	110%	91%	100%
	2009	20,287	23,073	8,305	88%	278%	244%
	2010	14,734	15,128	n/a	97%	n/a	n/a
	2011	14,314	15,997		89%		
	AVG.				107%	104%	108%
STL[1] (Stillaguamish Summer/Fall Wild)	1999	1,332	n/a	1,098	n/a	n/a	121%
	2000	1,370	1,500	1,645	91%	91%	83%
	2001	1,328	1,360	1,386	98%	98%	96%
	2002	1,372	1,449	1,588	95%	91%	86%
	2003	1,860	2,050	988	91%	207%	188%
	2004	1,795	n/a	1,506	n/a	n/a	119%
	2005	1,377	n/a	990	n/a	n/a	139%
	2006	1,116	1,169	1,273	95%	92%	88%
	2007	1,424	1,510	785	94%	192%	181%
	2008	689	637	1,800	108%	35%	38%
	2009	1,268	1,086	1,001	117%	108%	127%
	2010	898	817	785	110%	104%	114%
	2011	718	783		92%		
	AVG.				98%	113%	115%
PSF+PSY[3] (Puget Sound Fingerling + Yearling)	1999	66,876	69,285	134,603	97%	51%	50%
	2000	67,306	69,800	99,451	96%	70%	68%
	2001	102,899	105,955	131,547	97%	81%	78%
	2002	114,889	124,608	143,642	92%	87%	80%
	2003	114,275	133,850	132,282	85%	101%	86%
	2004	127,902	132,300	128,510	97%	103%	100%
	2005	104,084	110,542	158,824	94%	70%	66%
	2006	107,452	113,486	174,554	95%	65%	62%
	2007	127,115	135,714	192,591	94%	70%	66%
	2008	166,071	159,200	137,921	104%	115%	120%
	2009	110,373	133,187	112,827	83%	118%	98%
	2010	138,238	140,074	n/a	99%	n/a	n/a
	2011	131,361	168,642		78%		
	AVG.				93%	85%	79%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
WCN[2] (Washington Coastal Natural)	1999	42,129	43,780	25,065	96%	175%	168%
	2000	34,741	n/a	27,528	n/a	n/a	126%
	2001	34,563	35,306	35,495	98%	99%	97%
	2002	33,902	33,489	37,393	101%	90%	91%
	2003	32,785	n/a	41,469	n/a	n/a	79%
	2004	28,185	n/a	60,101	n/a	n/a	47%
	2005	34,857	n/a	44,319	n/a	n/a	79%
	2006	45,084	n/a	38,761	n/a	n/a	116%
	2007	35,695	32,362	26,093	110%	124%	137%
	2008	32,187	26,923	32,418	120%	83%	99%
	2009	29,758	31,318	38,616	95%	81%	77%
	2010	39,215	n/a	31,783	n/a	n/a	123%
	2011	28,079	n/a		n/a		
	AVG.				103%	109%	103%
WCH[2] (Washington Coastal Hatchery)	1999	35,239	42,752	14,664	82%	292%	240%
	2000	16,244	n/a	22,545	n/a	n/a	72%
	2001	15,792	n/a	23,156	n/a	n/a	68%
	2002	23,678	n/a	34,685	n/a	n/a	68%
	2003	20,755	18,222	41,839	114%	44%	50%
	2004	28,900	n/a	40,078	n/a	n/a	72%
	2005	28,626	n/a	42,656	n/a	n/a	67%
	2006	37,879	n/a	52,403	n/a	n/a	72%
	2007	41,801	40,497	24,682	103%	164%	169%
	2008	34,841	31,251	27,190	111%	115%	128%
	2009	35,603	42,595	36,908	84%	115%	96%
	2010	38,347	n/a	35,638	n/a	n/a	108%
	2011	33,728	n/a		n/a		
	AVG.				99%	146%	101%
CWS[2] (Cowlitz Spring)	1999	3,363	3,950	4,799	85%	82%	70%
	2000	4,922	6,050	6,132	81%	99%	80%
	2001	3,684	4,849	7,182	76%	68%	51%
	2002	5,534	6,800	11,644	81%	58%	48%
	2003	9,550	11,700	25,584	82%	46%	37%
	2004	20,802	27,350	28,696	76%	95%	72%
	2005	18,349	24,850	16,227	74%	153%	113%
	2006	12,841	15,250	19,685	84%	77%	65%
	2007	9,945	10,600	19,519	94%	54%	51%
	2008	9,544	12,400	6,838	77%	181%	140%
	2009	5,122	14,400	7,183	36%	200%	71%
	2010	18,927	19,409	12,410	98%	156%	153%
	2011	8,427	10,602		79%		
	AVG.				77%	106%	79%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
WSH[2] (Willamette Spring)	1999	46,187	49,875	56,159	93%	89%	82%
	2000	57,202	61,211	59,563	93%	103%	96%
	2001	59,207	59,600	83,831	99%	71%	71%
	2002	73,151	77,434	126,600	94%	61%	58%
	2003	108,530	112,521	128,971	96%	87%	84%
	2004	113,708	112,701	152,920	101%	74%	74%
	2005	105,111	122,280	67,137	86%	182%	157%
	2006	48,879	52,388	63,693	93%	82%	77%
	2007	44,542	61,071	42,776	73%	143%	104%
	2008	20,185	40,851	31,917	49%	128%	63%
	2009	41,793	41,205	38,110	101%	108%	110%
	2010	70,960	66,360	119,114	107%	56%	60%
	2011	113,667	109,600		104%		
	AVG.				90%	99%	86%
SUM[2] (Columbia River Summer)	1999	21,651	20,900	22,347	104%	94%	97%
	2000	27,214	28,038	23,169	97%	121%	117%
	2001	27,029	24,500	54,935	110%	45%	49%
	2002	70,290	77,700	92,820	90%	84%	76%
	2003	97,280	87,600	83,120	111%	105%	117%
	2004	83,246	78,589	65,446	106%	120%	127%
	2005	66,190	62,400	60,060	106%	104%	110%
	2006	75,893	78,512	78,196	97%	100%	97%
	2007	56,948	45,555	37,200	125%	122%	153%
	2008	50,171	52,000	55,500	96%	94%	90%
	2009	59,367	70,700	53,878	84%	131%	110%
	2010	81,403	88,800	72,364	92%	123%	112%
	2011	80,607	91,900		88%		
	AVG.				101%	104%	105%
BON+CWF[2] (Bonneville + Cowlitz Hatcheries)	1999	26,651	34,800	39,881	77%	87%	67%
	2000	17,095	23,700	26,971	72%	88%	63%
	2001	28,732	32,200	94,240	89%	34%	30%
	2002	100,401	137,600	156,411	73%	88%	64%
	2003	100,196	115,900	154,960	86%	75%	65%
	2004	64,696	77,100	108,308	84%	71%	60%
	2005	65,971	74,100	73,861	89%	100%	89%
	2006	49,302	55,800	58,317	88%	96%	85%
	2007	49,219	54,900	32,689	90%	168%	151%
	2008	58,557	59,000	60,268	99%	98%	97%
	2009	66,704	88,800	76,738	75%	116%	87%
	2010	95,581	90,600	103,055	105%	88%	93%
	2011	104,985	133,430		79%		
	AVG.				83%	92%	79%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
SPR[2] (Spring Creek Hatchery)	1999	62,831	65,800	50,189	95%	131%	125%
	2000	17,335	21,900	20,528	79%	107%	84%
	2001	56,089	56,600	124,954	99%	45%	45%
	2002	153,070	144,400	160,836	106%	90%	95%
	2003	89,116	96,900	180,592	92%	54%	49%
	2004	124,820	138,000	175,245	90%	79%	71%
	2005	92,021	114,100	93,145	81%	122%	99%
	2006	43,624	50,000	27,918	87%	179%	156%
	2007	19,421	21,800	14,583	89%	149%	133%
	2008	87,109	87,200	79,433	100%	110%	110%
	2009	32,585	59,300	48,970	55%	121%	67%
	2010	167,251	169,000	130,768	99%	129%	128%
	2011	70,478	116,400		61%		
	AVG.				86%	110%	97%
URB[2] (Columbia Upriver Bright)	1999	173,866	147,500	165,889	118%	89%	105%
	2000	212,317	171,100	156,553	124%	109%	136%
	2001	150,973	127,200	232,491	119%	55%	65%
	2002	249,721	281,000	276,948	89%	101%	90%
	2003	246,890	280,400	373,191	88%	75%	66%
	2004	246,943	292,200	362,804	85%	81%	68%
	2005	318,535	352,200	278,339	90%	127%	114%
	2006	231,646	253,900	230,390	91%	110%	101%
	2007	168,594	182,400	114,064	92%	160%	148%
	2008	151,839	162,500	196,881	93%	83%	77%
	2009	226,413	259,900	212,047	87%	123%	107%
	2010	296,816	310,800	324,908	96%	96%	91%
	2011	345,631	398,200		87%		
	AVG.				97%	101%	97%
LYF[1] (Snake River Wild)	1999	542	n/a	905	n/a	n/a	60%
	2000	1,243	n/a	1,148	n/a	n/a	108%
	2001	733	734	5,163	100%	14%	14%
	2002	2,066	n/a	2,116	n/a	n/a	98%
	2003	2,493	2,185	3,856	114%	57%	65%
	2004	4,323	3,725	2,983	116%	125%	145%
	2005	4,453	4,000	2,602	111%	154%	171%
	2006	8,310	3,500	2,483	237%	141%	335%
	2007	3,128	2,700	2,016	116%	134%	155%
	2008	2,718	2,534	2,222	107%	114%	122%
	2009	5,742	6,952	1,430	83%	486%	402%
	2010	2,609	2,610	9,583	100%	27%	27%
	2011	7,591	8,006		95%		
	AVG.				120%	139%	142%

Table 3-8. Continued.

Stock	Year	Model Forecast	Agency Forecast	Postseason Return	Model Fcst/ Agency Fcst	Agency Fcst/ Postseason	Model Fcst/ Postseason
MCB[2] (Mid-Columbia Bright)	1999	37,997	38,300	50,800	99%	75%	75%
	2000	53,460	50,600	37,200	106%	136%	144%
	2001	45,055	43,500	76,600	104%	57%	59%
	2002	102,085	96,200	108,400	106%	89%	94%
	2003	126,698	104,800	150,300	121%	70%	84%
	2004	94,895	90,400	122,600	105%	74%	77%
	2005	93,837	89,400	97,900	105%	91%	96%
	2006	90,881	88,300	80,471	103%	110%	113%
	2007	77,470	68,000	47,106	114%	144%	164%
	2008	59,481	45,000	75,489	132%	60%	79%
	2009	87,172	94,400	73,069	92%	129%	119%
	2010	82,454	72,600	78,937	114%	92%	104%
	2011	98,442	100,000		98%		
	AVG.				108%	94%	101%
LRW[2] (Lewis River Wild)	1999	3,072	2,600	3,349	118%	78%	92%
	2000	4,053	3,500	10,234	116%	34%	40%
	2001	16,574	16,700	15,721	99%	106%	105%
	2002	18,910	18,200	24,948	104%	73%	76%
	2003	25,820	24,600	26,021	105%	95%	99%
	2004	24,590	24,100	22,327	102%	108%	110%
	2005	21,937	20,200	16,767	109%	120%	131%
	2006	19,826	16,600	17,896	119%	93%	111%
	2007	10,306	10,100	4,276	102%	236%	241%
	2008	4,479	3,800	7,120	118%	53%	63%
	2009	8,478	8,500	7,533	100%	113%	113%
	2010	11,034	9,700	10,862	114%	89%	102%
	2011	12,445	12,500		100%		
	AVG.				108%	100%	107%
ORC[1] (Oregon Coastal)	1999	65,338	72,084	84,293	91%	86%	78%
	2000	61,457	63,259	69,074	97%	92%	89%
	2001	58,062	66,412	132,732	87%	50%	44%
	2002	73,055	73,914	176,929	99%	42%	41%
	2003	101,310	85,483	174,091	119%	49%	58%
	2004	135,716	131,904	130,907	103%	101%	105%
	2005	133,886	167,213	167,682	80%	100%	80%
	2006	126,393	136,373	110,191	93%	124%	112%
	2007	108,338	131,195	47,012	83%	279%	230%
	2008	53,417	70,101	39,615	76%	177%	135%
	2009	32,253	48,072	41,800	67%	115%	77%
	2010	51,234	59,806	64,799	86%	92%	79%
	2011	67,203	78,199		86%		
	AVG.				90%	109%	94%

[1] Escapement
[2] Terminal Run
Note that the model forecasts are the forecasts from separate yearly calibrations, not a time series of values from the most recent calibration

4 EVALUATION OF MARK-SELECTIVE FISHERIES

Chinook salmon released from Puget Sound hatcheries and spring run hatchery Chinook salmon in the Columbia River have been mass-marked since brood 1998. Mass marking of Columbia River fall Chinook salmon started with brood year 2005 and for brood year 2009 onwards most of the Chinook salmon production intended for harvest released in Washington and Oregon has been mass marked (SFEC 2009). Mark selective fisheries (MSFs) have been in place in Puget Sound (including US Strait of Juan de Fuca) since 2003, on the Columbia River since 2001, and in BC Juan de Fuca since 2008 (Table 4-1). Additionally, the first ocean mark-selective Chinook salmon fishery occurred off the Washington Coast (Areas 1-4) in 2010.

4.1 Catch in MSFs

MSFs have been in place in Puget Sound in Washington Areas 5 and 6, part of Puget Sound North Sport (PSN Sp) during the summer since 2003. and in 2005 a winter MSF started in Washington Areas 8.1 and 8.2 (Puget Sound other sport, PSO S). In 2007, additional MSFs were implemented in Washington Areas 9, 10 and 11 (PSO S) in the summer months and in Areas 7 (PSN S), 9 and 10 (PSO S) in the winter months (Table 4-1 and Table 4-2). MSFs have continued to expand in Puget Sound marine areas to the extent that in 2010 all marine sport management areas have MSFs for at least some portion of the year. Total landed catch in MSFs in marine sport fisheries remained fairly constant from 2003 to 2005, around 3,000 to 4,000, but then increased in 2007 to about 25,000, while landed catch in non-selective fisheries ranged from 20,000 to 26,000 over the same period (Figure 4-1). Since 2007, catch in MSF fisheries in northern Puget Sound marine areas has nearly doubled, while MSF catches in other marine areas have remained about the same. MSFs have been implemented in freshwater areas (TERM S) since 2003 (Figure 4-1 and Table 4-3), with total estimated MSF catch ranging from 1,000 to 7,000. The percent of total MSF catch in the three PSC sport fisheries in Puget Sound (Figure 4-1) for 2009 is about 70% in PSN, 90% in PSO, and about 50% in freshwater (TERM S).

Chinook salmon MSFs have been in place in the Columbia and Willamette rivers since 2001 (Table 4-2). Most of the catch from MSFs has been directed on mass marked spring Chinook salmon from the Willamette, Cowlitz, Kalama, Lewis Rivers in the lower Columbia, tributaries in the upper Columbia upstream of Bonneville Dam, and in the Snake River (Table 4-2). MSFs on fall Chinook salmon were first implemented in the Lower Columbia tributaries in 2008 (Grays River only) and have expanded to the other streams with significant numbers of hatchery origin fish (e.g. Elochoman, Cowlitz, Toutle, Lewis, Kalama, Washougal, Wind, White Salmon rivers and Drano Lake). The fishery in the Cowlitz River in 2009 had a mixed-bag, partial MSF limit allowing one unmarked adult Chinook salmon. Total catch in these MSF fisheries is smaller than the catches from the mainstem Columbia River that has not been under MSF regulations during the fall season (Table 4-2).

A mixed-bag, partial MSF has occurred in the BC Juan de Fuca sport fishery since 2008. The fishery had a minimum size limit of 45 cm, with a 2 Chinook salmon per day bag limit, however wild Chinook salmon could not be retained if they exceeded 67 cm Fork Length. This partial MSF has occurred in 2008-2009. The mixed-bag, partial MSF regulation was intended to protect Fraser River spring-run age 1.2 and age 1.3 stock groups as they returned to the Fraser River.

Table 4-1. Mark selective fisheries occurring from 2003-2010 (√). See SFEC (2009) for more detailed information on MSF proposals and fisheries

.Fishery	Location	Period	2003	2004	2005	2006	2007	2008	2009	2010
Sport	BC Juan de Fuca,	March-April						√	√	√
Sport	WA/OR Ocean Area 1-4	June								√
Sport	WA PS Area 5	Summer	√	√	√	√	√	√	√	√
Sport	WA PS Area 6	Summer	√	√	√	√	√	√	√	√
Sport	WA PS Area 7	Winter						√	√	√
Sport	WA PS Area 8.1	Winter			√	√	√	√	√	√
Sport	WA PS Area 8.2	Winter			√	√	√	√	√	√
Sport	WA PS Area 9	Summer					√	√	√	√
Sport	WA PS Area 9	Winter						√	√	√
Sport	WA PS Area 10	Summer					√	√	√	√
Sport	WA PS Area 10	Winter						√	√	√
Sport	WA PS Area 11	Summer					√	√	√	√
Sport	WA PS Area 11	Winter							√	√
Sport	WA PS Area 12	Winter							√	√
Sport	WA PS Area 13	Summer					√	√	√	√
Sport	Nooksack	Sep-Dec		√	√	√	√	√	√	√
Sport	Skykomish	Jun-July	√	√	√	√	√	√	√	√
Sport	Carbon & Puyallup R	Aug-Dec	√	√	√	√	√	√	√	√
Sport	Upper Skagit	Jun-July			√	√	√	√	√	√
Sport	Nisqually	Jul-Jan				√	√	√	√	√
Sport	Skokomish	Aug-Dec								√
Sport	Columbia	Summer	√	√	√					√
Sport	Lower Columbia	Spring	√	√	√	√	√	√	√	√
Commercial (tangle net)	Lower Columbia	Spring	√	√	√	√	√	√	√	√
Commercial, (large net)	Lower Columbia	Spring	√	√	√	√	√	√	√	√
Sport	Willamette	Spring	√	√	√	√	√	√	√	√
Sport	Lower Columbia Tributaries	Fall						√ (Grays R.)	√	√
Sport	Yakima R	Spring			√	√	√	√	√	√
	Lower Snake	Fall						√	√	√
Sport	Oregon terminal	Spring						√	√	√

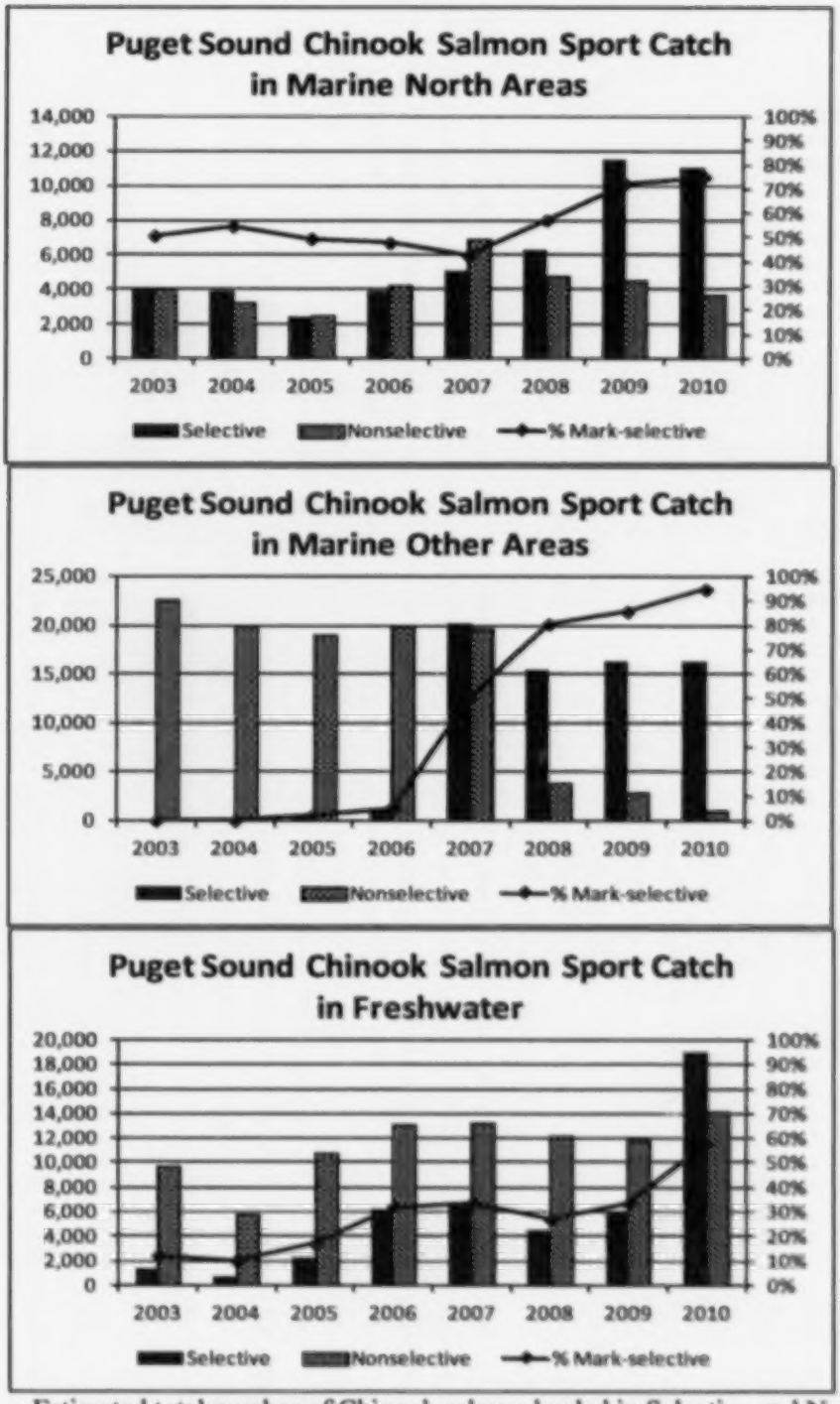

Figure 4-1. Estimated total number of Chinook salmon landed in Selective and Non-Selective fisheries (left y-axis) and % of catch in MSFs (right y-axis) in Puget Sound for catch years 2003-2010.

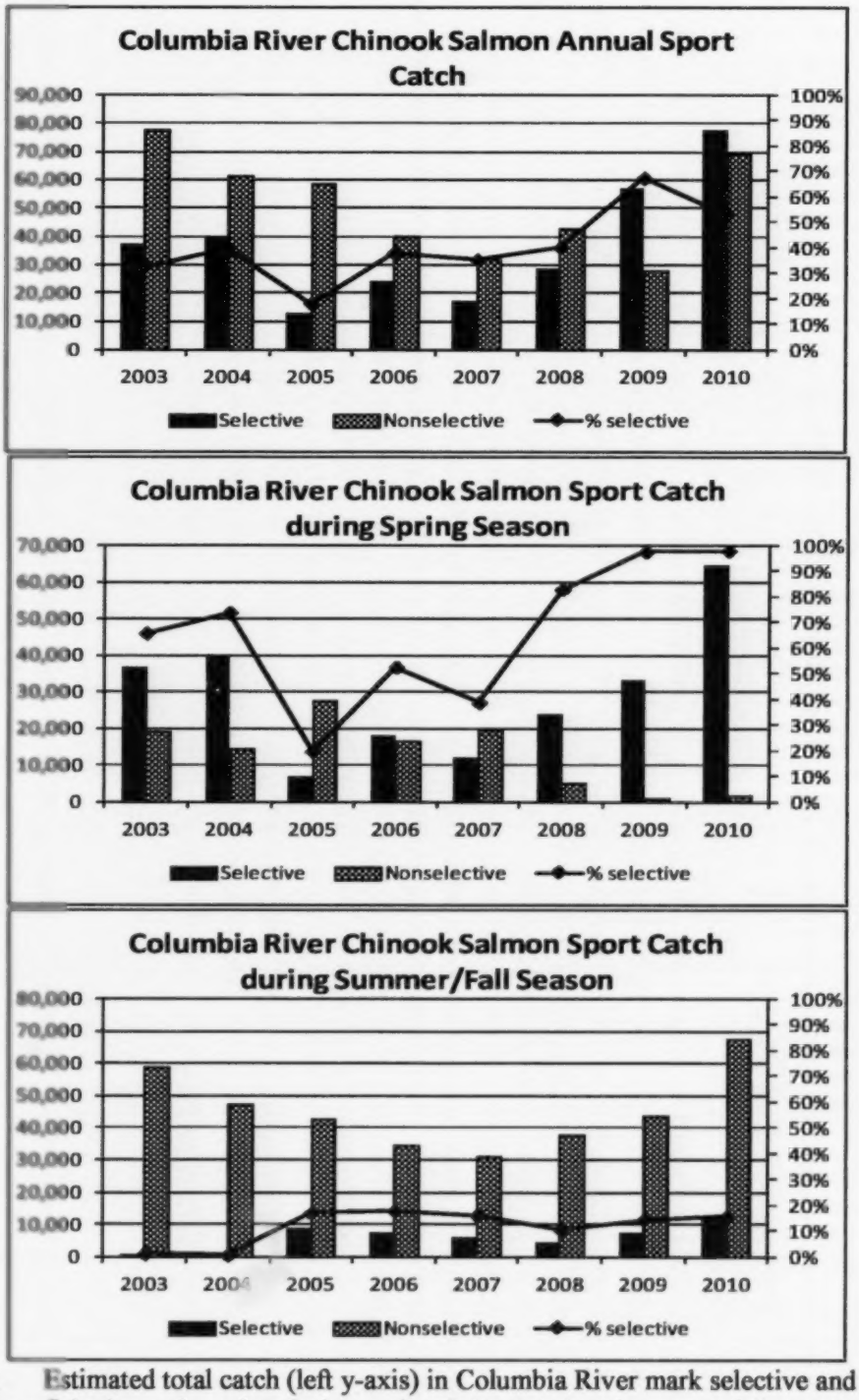

Figure 4-2. Estimated total catch (left y-axis) in Columbia River mark selective and non selective sport fisheries and catches during spring (May-June) and summer-fall seasons (Jul-Dec) and % of catch in MSFs (right y-axis) for catch years 2003-2010.

Table 4-2. Retained or landed catch and total encounters (landed+released) and total mortalities (landed+release mortalities) by size and mark category in MSFs for Puget Sound and Juan de Fuca marine sport fisheries (PSN, PSO, JDF) for 2003-2009 and the Washington-Oregon ocean sport fishery in 2010.

Fishery	Stat Area	Year	MSF period	Retained Marked Fish	Retained Unmarked fish	Encounters Marked	Encounters Unmarked	% Marked	Legal-sized Marked fish Landed & Release Mortalities	Legal-sized Unmarked fish Landed & Release Mortalities	Sub-Legal-sized Marked fish Landed & Release Mortalities	Sub-Legal-sized Unmarked fish Landed & Release Mortalities
BC Juan de Fuca (JDF)	Area 19,20	2008	Apr-May	122	51	122 [1]	68 [1]	64%	122 [2]	64 [2]	5 [2]	3 [2]
	Area 19,20	2009	Mar-May	152	26	152 [1]	105 [1]	59%	152 [2]	41 [2]	24 [2]	16 [2]
	Area 19,20	2010	Mar-May	827	347	827 [1]	704 [1]	54%	827 [2]	135 [2]	NA	NA
WA/OR Ocean	Area 1-4	2010	Jun	5,018	19	7,565	3,791	67%	5,123	384	252	164
PugetSound North (PSN)	Area 5/6	2003	Jul-Aug	3,417	76	4,850	8,627	36%	3,192	680	512	905
	Area 5/6	2004	Jul-Aug	3,571	5	4,598	6,365	42%	3,375	636	402	430
	Area 5/6	2005	Jul-Aug	2,025	53	3,125	3,237	49%	1,924	311	320	283
	Area 5/6	2006	Jul-Aug	3,641	25	4,494	5,095	47%	3,443	482	368	400
	Area 5/6	2007	Jul-Aug	3,972	124	5,235	3,839	58%	3,684	433	540	300
	Area 5	2008	Jul	2,819	0	3,298	2,199	60%	2,836	280	58	66
	Area 5	2009	Jul-Aug	5,958	440	16,504	20,958	44%	4,952	1009	3,079	3,223
	Area 5	2010	Jul-Aug	5,703	14	9,682	9,114	52%	–	–	–	–
	Area 6	2009	Jul-Aug	2,293	–	–	–	66%	–	–	–	–
	Area 6	2010	Jul-Aug	–	–	–	–	52%	–	–	–	–
	Area 7	2008	Feb	1,300	2	1,767	1,199	60%	1,330	158	73	31
	Area 7	2009	Feb-Apr	1,420	9	1,769	734	71%	1,452	115	28	3
	Area 7	2009-10	Dec-Apr	1,418	0	2,340	585	70%	1,449	66	143	29
Puget Sound Other (PSO)	Area 8-1, 2	2005-06	Oct-Apr	1,112	40	3,262	2,010	62%	1,038	145	504	253
	Area 8-1, 2	2006-07	Oct-Apr	1,177	33	11,781	5,853	67%	1,059	61	2,239	1,123
	Area 8-1, 2	2007-08	Nov-Apr	1,543	23	4,040	1,388	74%	1,574	96	458	176
	Area 8-1,2	2009	Jan-Apr	912	27	4,045	1,467	73%	932	37	620	276
	Area 8-1,2	2009-10	Nov-Apr	1,109	4	3,167	969	76%	1,133	36	379	151
	Area 9	2007	Jul	5,239	32	6,757	1,667	80%	5,081	191	462	110
	Area 9	2008	Jan-Apr	1,405	3	2,880	682	19%	1,362	49	330	75
	Area 9	2008	Jul-Aug	4,045	3	7,854	5,436	59%	4,124	244	653	765
	Area 9	2008-09	Nov, Jan-Apr	885	14	4,535	3,009	60%	905	38	704	567
	Area 9	2009	Jul-Aug	3,229	20	11,947	4,196	74%	3,298	211	1,651	581
	Area 9	2009-10	Nov-Apr	1,557	27	3,940	995	80%	1590	80	433	123
	Area 9	2010	Jul-Aug	5,292	39	6,782	2,413	74%	–	–	–	–
	Area 10	2007	Jul	1,539	38	4,301	1,044	80%	1,451	95	640	123
	Area 10	2007-08	Dec-Jan	635	21	2,575	545	83%	551	45	468	72
	Area 10	2008	Jul-Aug	1,031	3	1,348	898	60%	1,046	79	42	77

	Stat Area	Year	MSF period	Retained Marked Fish	Retained Unmarked fish	Encounters Marked	Encounters Unmarked	% Marked	Legal-sized Marked fish Landed & Release Mortalities	Legal-sized Unmarked fish Landed & Release Mortalities	Sub-Legal-sized Marked fish Landed & Release Mortalities	Sub-Legal-sized Unmarked fish Landed & Release Mortalities
Puget Sound Other (PSO)	Area 10	2008-09	Dec-Jan	251	0	1,297	498	72%	257	5	202	92
	Area 10	2009	Jul-Aug	1,621	22	4,329	1,121	79%	1,654	34	498	203
	Area 10	2009-10	Oct-Jan	395	2	2,979	983	75%	403	14	506	180
	Area 10	2010	Jul-Aug	2,987	42	4,443	2,733	62%	–	–	–	–
	Area 11	2007	Jun-Sep	10,546	95	17,534	4,779	79%	10,208	468	1,736	433
	Area 11	2008	Jun-Sep	7,377	23	10,434	2,269	82%	7,440	318	494	54
	Area 11	2009	Jun-Sep	3,277	37	7,582	4,623	62%	3,348	228	767	663
	Area 11	2010	Feb-Apr	326	3	487	93	84%	333	15	23	2
	Area 11	2010	Jun-Sep	3,910	64	5,390	1,574	77%	–	–	–	–
	Area 12	2010	Feb-Apr	300	–	–	–	50%	–	–	–	–
	Area 13	2009	May-Sep	1,340	–	–	–	86%	–	–	–	–
	Area 13	2010	May-Sep	–	–	–	–	82%	–	–	–	–

[1]Legal sized Chinook salmon
[2]IM and drop-off rates same as used in CTC Catch & Escapement report: drop-off (6.9) and IM release rate (12.3).

Table 4-3. MSFs in Puget Sound Terminal Sport for Chinook salmon 2003-2009. Catches of marked fish are reported where available for the calendar year; either from PSMFC catch sample database (a), preliminary catch record card estimates (b) or creel survey estimates (c). Fishery and years that were sampled are indicated by an (s).

Fishery	Location	2003	2004	2005	2006	2007	2008	2009	2010
Sport	Nooksack River	–	5[b]	186[b]	119[b]	162[b]	14[b]	42[b]	56[b]
Sport	Skykomish River	177[b]	85[b]	76[b]	78[b]	6[25b]	432[b]	227[b]	238[b]
Sport	Carbon & Puyallup River	1,287[a,s]	1,019[a,s]	1,590[a,s]	1,736[a,s]	2,525[a,s]	1,665[b]	2,919[b]	509[b]
Sport	Upper Skagit &Cascade River	–	–	173[a,s]	458[a,s]	724[a,s]	277[b]	343[b]	250[b]
Sport	Nisqually River	–	–	–	3,711[b]	4,302[b]	2,132[b]	2,789[b]	2,728[b]
Sport	Skokomish	--	--	--	--	--	--	--	6,243[b]

4.2 Size of MSFs

The size of a MSF relative to the total exploitation of a stock can be measured using the percentage of the total landed catch in net, sport and troll fisheries of tagged and marked PSC indicator stocks that is in MSFs (Table 4-4). MSFs were first implemented in Puget Sound and on spring stocks in the Columbia River. In Puget Sound a MSF occurred in the summer of 2003 in the Strait of Juan de Fuca and by 2009 has expanded to all areas in Puget Sound with the exception of Hood Canal (Table 4-1). In 2008, MSFs were implemented in the Grays River

(tributary of the Columbia River) on fall Chinook salmon, in BC in the Strait of Juan de Fuca, and in terminal areas of the Oregon coast. The percentage of the total landed tagged and marked catch that occurs in MSFs increased over this period for stocks in Puget Sound and the Columbia River, and in 2009 the percentage of marked landed impacts that occurred in MSFs was substantial for some of the Columbia River stocks (Table 4-4). In Puget Sound in 2009, the percentage of the impacts in MSFs was over 15% for most of the marked and tagged indicator stocks.

4.3 Impact of MSFs on unmarked Chinook salmon.

PSC indicator stocks that have been double index tagged (DIT) can be used to evaluate the impact of MSFs on the unmarked stocks represented by the unmarked tag group in a DIT pair[1]. The ratio of unmarked to marked fish (λ) for a DIT group provides a relationship between the two tag groups and a measure to evaluate the impact of MSFs on the DIT stock. A comparison of the ratio of unmarked to marked measured at release and measured again at escapement provides a hypothesis test of no difference in proportional return from release to escapement provides a measure for evaluation the impact of MSFs on a stock with DIT representation. This was not significant for brood years before 2002 as MSFs did not start until 2003 (Table 4-5). A negative test statistic occurs when a higher proportion of marked fish return, which could indicate either mark mortality or sampling problems in the hatchery. This would be of concern if this occurred consistently for a stock or hatchery.

The ratio of these unmarked to marked ratios, or the odds ratio, $\frac{\lambda^{Escapement}}{\lambda^{Release}}$ (Agresti 1984) is another measure comparing the DIT groups, where an odds ratio of one indicates that the ratio did not change from release to escapement while an odds ratio larger than one indicates a higher removal of marked fish compared to the DIT unmarked fish, which is assumed to be due to MSFs (Figure 4-3). For Puget Sound DIT stocks, Skagit springs (SKS), Skykomish (SKY) and Nisqually (NIS) show the strongest indication that there is a differential impact of MSFs on marked and unmarked DIT groups, as the odds ratio is significantly larger than one in most broods after 2002. All of these DIT stocks are subject to terminal sport MSFs which target the hatchery production including the DIT returns.

[1] A DIT group consists of at least two tag groups, one with the mass mark (or adipose fin clip) and one without the mark. These two tag groups are treated identically except for the mark and differences in mortality should be due to the MSFs, assuming there is no mark mortality occurring prior to recruitment to the fisheries.

Table 4-4. Estimated landed catch of tagged and marked PSC Chinook Indicator Stocks in BC, Washington and Oregon in all net, troll and sport fisheries for catch years 2003-2009 and % of total tagged and marked catch that was landed in MSFs.

		2003		2004		2005		2006		2007		2008		2009	
Region	Stock	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF	Total	% MSF
AK	Alaska Spring	2,340		3,245		5,782		5,527		4,920		4,164		2,817	
BC	Atnarko Summer	148		160		312		300		96		50		395	
	Big Qualicum	89		113		221		140		211		140	6%	155	3%
	Chehalis (Harrison Fall)	140	5%	293	3%	260		226		78		509	2%	170	4%
	Chilliwack (Harrison Fall)	1,273	2%	1,419	2%	1,195	1%	594	1%	365	2%	1,027	4%	581	6%
	Cowichan Fall	230	1%	274	1%	184	2%	174		49		140		283	
	Dome Creek Spring	126		1		161		14		10		93		6	
	Kitsumkalum Summer	196		559		434		299		439		698		321	
	Lower Shuswap R Sum	617		600		457		715		127		569		676	1%
	Nanaimo River Fall	259	3%	253		141	3%	49		438	1%	44		6	
	Nicola River Spring	240		138		101		69		43		68		88	4%
	Puntledge Summer	21		26		78		64		56		50		115	
	Quinsam Fall	203		318		388		287		265		99		146	
	Robertson Creek	1,167		2,666		2,328		1,758		1,628		827		764	
COL R	Cowlitz Fall Tule	304		116	4%	98		54		50		64	6%	105	6%
	Hanford Wild	642		840		359		325		175		141		209	
	Columbia Lower R Hat	1,076	2%	915	0%	348		45		40		228		344	9%
	Lewis River Wild	205	3%	351		190		352		112		41		75	
	Lyons Ferry	117		191	2%	145	5%	116		247	1%	1,335	0%	1,035	

	Spring Creek Tule	3,286	0%	3,065	1%	1,408	0%	472	1%	574	2%	1,462	3%	1,104	5%
	Columbia Summers	4,270	0%	3,864	0%	4,217		2,531	0%	2,145	0%	878	1%	445	2%
	Upriver Brights	1,052		996	0%	1,499		932	0%	309	2%	418		716	2%
	Willamette Spring	NA		NA		NA		NA		NA		NA		NA	
	Elk River	2,418		2,525		1,257		1,384		1,320		1,424		989	
OR CST	Salmon River	2,716		2,891		3,144		1,435		425		278		458	
	George Adams														
WA PS	Fall Finger	547	3%	625	6%	909	5%	551	4%	863	17%	462	14%	545	25%
	Green River Fall Finger	459	7%	466	3%	305	3%	661	3%	884	7%	715	13%	637	11%
	Grovers Creek Fall Finger	787	7%	743	5%	732	3%	878	6%	810	16%	360	32%	568	24%
	Nisqually Fall Finger	1,154	3%	921	1%	446	4%	1,830	2%	1,906	11%	723	14%	798	15%
	Nooksack Spring Finger	219		449		366	2%	326	2%	290	2%	625	5%	310	7%
	Samish Fall Fingerling	524	1%	354	2%	525	4%	1,306	2%	1,361	3%	1,226	9%	871	10%
	Skagit Spring Fingerling	224	1%	348	1%	400	11%	728	48%	1,207	36%	520	8%	482	27%
	Skagit Spring Yearling	436	2%	446	2%	470	19%	459	57%	449	51%	229	16%	217	33%
	Skykomish Fall Fingerling	84	6%	234	6%	202	2%	272	9%	435	5%	135	17%	88	38%
	South Puget Sd Fall Year	5		21		226	7%	208	5%	227	24%	61	53%	117	58%
	Skagit Summer Fingerling	314	1%	184	2%	311	2%	292	3%	395	1%	449	2%	496	4%
	Stillaguamish Fall Finger	6		0		122	5%	158	3%	322	2%	369	22%	262	14%
	Hoko Fall Fingerling	219		279	2%	234	2%	232	2%	272	2%	127		85	5%
	Quoets Fall Fingerling	930		1,250		1,313		694		488		511		912	
WA CST	Sooes Fall Fingerling	356	1%	362	1%	344		156	2%	37		51		159	

Table 4-5. Results for hypothesis test (H_0: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant.

Stock	Brood Year	Unmarked		Marked		Unmarked to marked ratio		Ages in MSFs		Z-statistic for H_0 of no impact	p(Z) two tailed	Significant?
		Escapement	Release	Escapement	Release	λ rel	λ esc	Pre-terminal	Terminal			
Green River	2001	108	162,160	88	178,119	0.910	1.227	2-5		2.08	0.04	Y
	2002	493	198,321	550	192,443	1.031	0.896	2-5		(2.26)	0.02	Y
	2004	578	204,269	507	204,698	0.998	1.140	2-5		2.14	0.03	Y
	2005	938	198,542	807	196,353	1.011	1.162	2-4		2.87	0.00	Y
	2006	229	204,385	165	204,795	0.998	1.388	2-3		3.19	0.00	Y
Grovers Creek	2003	1,431	151,492	1,348	163,799	0.925	1.062	2-5		3.65	0.00	Y
	2004	1,133	133,455	872	118,197	1.129	1.299	2-5		3.06	0.00	Y
	2005	1,115	169,954	1,076	136,519	1.245	1.036	2-4		(3.94)	0.00	Y
Nisqually	1998	668	192,165	485	202,103	0.951	1.377	4-5		6.00	0.00	Y
	2002[1]	572	99,688	426	88,909	1.121	1.343	2-5	4-5	2.79	0.01	Y
	2002[1]	500	92,560	382	91,385	1.013	1.309	2-5	4-5	3.71	0.00	Y
	2003	1,235	203,624	1,096	207,975	0.979	1.127	2-5	3-5	3.30	0.00	Y
	2004	1,102	209,905	924	208,724	1.006	1.193	2-5	2-5	3.71	0.00	Y
	2005	674	127,293	510	120,154	1.059	1.322	2-4	2-4	3.62	0.00	Y
	2006	334	204,613	268	204,221	1.002	1.246	2-3	2-3	2.41	0.02	Y
Skagit Spring	2002	561	60,000	436	59,777	1.004	1.287	2-5	3-5	3.92	0.00	Y
	2003	338	75,418	242	74,590	1.011	1.397	2-5	2-5	3.87	0.00	Y
	2004	718	71,942	465	73,668	0.977	1.544	2-5	2-5	7.71	0.00	Y
Skykomish	2002	408	197,105	325	195,075	1.010	1.255	2-5	2-5	2.83	0.00	Y
	2003	469	173,116	416	176,427	0.981	1.127	2-5	2-5	1.99	0.05	Y
	2004	966	199,529	807	200,398	0.996	1.197	2-5	2-5	3.70	0.00	Y
	2006	103	206,362	75	205,344	1.005	1.373	2-3	2-3	2.01	0.04	Y

[1] Nisqually brood year 2002 had two experimental groups released as DIT groups.

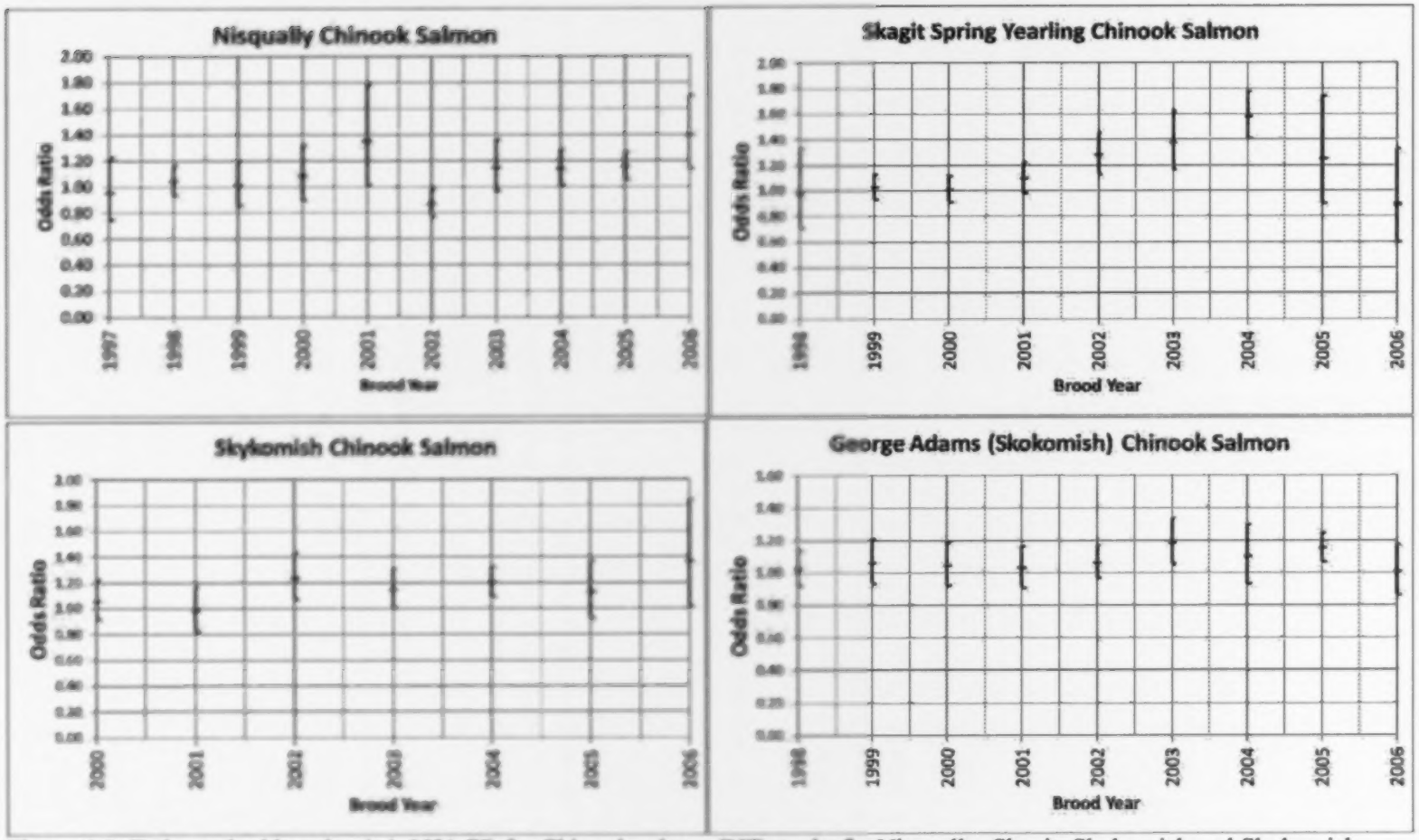

Figure 4-3. Estimated odds ratios (+/- 95% CI) for Chinook salmon DIT stocks for Nisqually, Skagit, Skykomish and Skokomish Rivers where in-river MSFs have been in place. Nisqually brood years 2000 through 2002 had two experimental groups released as DITs. These two groups were combined for this figure.

5 PROGRESS REPORT ON IMPROVEMENTS TO THE COASTWIDE CWT PROGRAM

The CWT Improvement Program is a new activity identified in the 2008 Agreement. The objective is to implement over a five-year period, beginning no later than 2010, critical improvements to the coast-wide CWT programs operated by the Parties' respective management agencies. The bilateral CWT Improvement Team (CWTIT) was established on November 13, 2009, per the Terms of Reference from the PSC entitled Pacific Salmon Commission: Bilateral Approach to Implementation of Improvements to the Coast-wide Coded Wire Tagging (CWT) Program. The CWTIT is tasked with making recommendations regarding projects to improve the CWT system, including CWT reporting systems, data quality, tagging levels, sampling levels, and the precision and accuracy of statistics such as abundance, exploitation rates, survival estimates, etc. for Chinook salmon. Canada implemented the program in 2009, and the U.S. in 2010 due to differences in the timing of fiscal years. The results for the 2009 funding for Canada were reported in CTC (2011). In this report, the results for funding of 2010 projects are reported along with a list of projects approved for funding in 2011.

5.1 Canadian Projects Undertaken in Fiscal Year 2010

A total of 12 Canadian projects were funded in FY 2010, representing a total expenditure of $1,500,000. These projects are described below and each description includes the CWT issue listed in the PSC CWT Workgroup Tech Report 25 (Table 5-3, PSC 2008) that the program is intended to address.

1) Increased CWT Marking Indicators
(2009: $842,000 including $650,000 tags purchased for 5 years, 2010: $465,000 including $143,000 tag purchase) TR 25 Issue (Primary): 2

The objective of this project was to increase the tagging, recovery, accuracy, and precision of CWT expansions. Progress: Application of CWTs was increased at four indicator stocks in 2009 and 12 stocks in 2010. In 2010 the planned incremental tag application was achieved at all facilities except the Cowichan Hatchery. Due to very poor escapement and broodstock availability Cowichan Hatchery released only 250,000 of the total 400,000 planned incremental tagged Chinook salmon. Improvement: Tagging rates have been doubled or tripled for all Chinook salmon indicators. Success: Yes.

2) Atnarko Chinook CWT Indicator Stock
(2009: $135,500, 2010: $99,500)
TR 25 Issue (Primary): 1, 4, 6, 10

Objectives: To expand the Atnarko assessment program to a Central Coast Chinook salmon exploitation rate indicator by improving estimates of escapement and terminal fishery catch. Technical Report 25 noted Central BC was lacking a Chinook salmon indicator. The only northern indicator, Kitsumkalum, is a stream-type yearling stock, whereas Atnarko is an ocean-type stock. Progress: in 2009 and 2010, 250,000 incremental CWTs were applied, terminal

commercial, sport (2009 only), and First Nations fisheries were sampled, and a mark-recapture program was used to estimate escapement. Improvement: The 2010 escapement mark-recapture program was impacted by a major flood event at the end of September. Prior to the flooding event, 1,008 Chinook salmon were tagged, 1,025 carcasses examined, and 87 tags recovered. The preliminary escapement estimate is 10,900 - 11,760 (CV 10-11%). 86 CWTs were recovered. The Bella Coola River First Nation fishery caught 3,200 fish (preliminary): 775 were examined for fin clips, and 76 heads collected for CWT dissection. The creel survey program did not proceed in 2010 due to staffing issues. Success: Yes.

3) Increased CWT Recovery in Indicator Escapement Programs
(2009: $83,500, 2010: $66,500)
TR 25 Issue (Primary): 5, 6

The objective of this project was to improve the quantity and quality of CWT data (low sampling rates in escapement (5) and uncertainty in escapement estimates (6)) at spawning grounds and hatcheries. The strategy varied by location. Progress: At Quinsam, a new study design was implemented to estimate river spawners as the previous methodology was determined to be biased low by 2% to 11%. At Nicola, two additional samplers helped recover carcasses before predators could remove them and 191 CWTs were recovered in 2010. At Harrison in 2010 sampling was again hampered by poor water visibility due to a landslide, however 91 CWTs were collected. At Chilliwack, two additional staff achieved a 10% higher sampling rate and approximately 3,650 heads were collected from every available carcass. At Cowichan River, an additional crew was used to expand the survey area, and extend the survey period by four weeks. Since 2009, recovery of carcasses has increased by 5% and recovery of heads from ad-clipped Chinook salmon has increased more than 600% (confounded with increased tagging). At Big Qualicum in 2010 planned sampling of spawners below the fence was not implemented, so escapement CWTs are biased low. At Robertson hatchery, heads were systematically re-sampled to improve the quality assurance and quality control (QA/QC) on CWT recoveries. At Kitsumkalum, since 2009 all live fish with clipped adipose fins were sacrificed during the tag application phase of the mark-recapture program. The average CWT sampling rate since 2009 increased to 18% versus 13%. Improvement: Increased recovery, accuracy and precision of CWT expansions in dead pitch. Success: Yes.

4) CWT Head Processing and Data Management
(2009: $95,000, 2010: $135,000), TR 25 Issue (Primary): 1, 2, 4, 5, 7, 9, 10

This project addresses incremental costs in CDFO head recovery, lab operations and data entry resulting from increased tagging and sampling in all CDFO programs. Progress: Increased head recoveries from increased sampling rates at spawning grounds and in commercial, sport, and First Nation fisheries, increased sampling due to the development of the Atnarko indicator program, and increases in US mass-marked Chinook salmon in Canadian fisheries have resulted in increases to CWT dissection and lab data entry activities. Significant progress has been made in improving representative sampling of the troll fisheries through the introduction of conditions of license for 50% of the troll fleet to retain heads for all kept Chinook salmon. Improvement: Increased sampling rate in Canadian troll, and improved timeliness of reporting in general. Success: Yes.

5) CWT Reporting System – Modifications to CDFO Mark Recovery Program (MRP) System (2009: $90,000, 2010: $90,000) TR 25 Issue (Primary): 14, 15, 17, 18

The objective was to improve the CDFO CWT Mark Recovery Data system including: data quality, processing, and accessibility of CWT data. Progress: A full time programmer has been in place since 2009. Improvements: (1) Rewrite of programs that handle data from 1990-1996 resulting in the completion of reviews and improvements to data and CWT estimates from 1990 to present, (2) Increased functionality to provide more flexibility for stratification of CWT estimates by species, fisheries, locations and periods, (3) improvements resulting in inter-relationship and with other Canadian Systems (escapement, catch, creel) resulting in improved data and improvements in timeliness for CWT calculations, and (4) improvements in access by Canadian Users to CWT information. These improvements are reflected in the improvements in quality, completeness (version 4.1) and timeliness of submissions to the United States Regional Mark Information System (RMIS) through data sharing commitments. Success: Yes.

6) Regional CWT and Catch Estimation QA/QC (2010: $75,000)
TR 25 Issue (Primary): 6, 8

The objective was to provide QA/QC of all catch data associated with CWT recoveries and ensure proper stratification for tag expansions. Progress: A Catch QA/QC Analyst has been in place since 2009. Improvements: Logbook data for years 2007 through 2010 have been reviewed. Success: Yes.

7) Sport and First Nation CWT Recovery Coordinator (2009: $85,000, 2010: $85,000)
TR 25 Issue (Primary): 6, 8

The objective was to increase the sampling and recoveries from terminal fisheries currently under sampled. Progress: Since 2009, a full time senior technician has been in place to coordinate the sampling and processing of CWT recoveries in all sport and First Nations fisheries and to implement improvements in sampling procedures across these fishery sectors. Improvements: Improved participation in CWT submission from all sectors, improved coordination with fisheries monitoring programs and increased recoveries of CWTs from terminal sport and First Nations fisheries. Success: Yes.

8) Feasibility and Design of Regulations Database
(2010: $20,000), TR 25 Issue (Primary): 9

This project was a feasibility study to review / identify changes in CDFO business processes and design a database to capture salmon regulations according to Regional data standards and maintained in a Pacific Region Oracle database. This regulation database would be available as records of management actions and for use in generating catch estimates and CWT expansions relative to regulations, and provide more timely and accurate reporting on effects of management actions. Progress: A consultant was employed to scope design, data requirements and linkages between agency data systems. Expected Improvements: if implemented include reduced

uncertainty in catch estimates and CWT expansions, and improved data management. Success: Yes.

9) Historic CWT Data Recovery for Fraser River Chinook Salmon
(2010: $20,000), TR 25 Issue (Primary): 1, 6

The objective was to recover historical (pre-1990's) Fraser River Chinook salmon mark and recapture data (including CWT data) from hardcopy and 5 ¼ inch floppy disks. These data are invaluable to correct for known biases in the index methods for escapement estimation used prior to the 1990's throughout the Fraser watershed. Progress: This dataset was recovered and transferred to Pacific Region Oracle database according to Regional data standards. Improvements: These data improve the estimates of escapement and CWT expansions and are available for use in the Chinook salmon model and will improve the accuracy of data used to evaluate stock status and planning fisheries. Success: Yes.

10) Regional Sport and First Nations Fishery CWT Recovery Improvements
(2009: $140,000, 2010: $182,000), TR 25 Issue (Primary): 4, 7, 9, 10, 11

The objective was to increase the head submission rates, improve the data associated with the Sport Head Recovery Program, and improve CWT sampling in First Nations fisheries. Progress: Measures implemented in the recreational fishery include: public outreach initiatives, expansion of south coast region creel program to include opportunistic direct visual sampling of CWTs and increased communication with recreational anglers, and implementation of various projects to expand or improve sport head recovery program depots. DFO provided support to Lower Fraser First Nations to collect CWT samples from commercial and FSC fisheries as an integrated process in the Lower Fraser First Nations catch monitoring program. The Mid-Fraser, BC Interior, Cowichan, Big Qualicum, Somass and Bella Coola First Nations have expanded catch monitoring programs to collect CWT samples and improve the precision of the catch estimate. Sampling procedures, forms, data entry and programming has been modified to support these new data sources. Improvements: improved CWT recoveries in remote areas (North Western Vancouver Island, North Island, Central Coast, Northern BC, and BC interior). Results from the voluntary Sport Head Recovery program indicate increased Chinook salmon heads recovered in 2010 (6,210 heads) versus 2009 (4,072 heads). Average 2010 Chinook salmon sport submission rates for 7 ocean and 6 freshwater sport fisheries were above 20% with the exception of Central Sport (9%) and Lower Fraser (12.5%). Success: Generally yes.

11) Expansion of Catch Monitoring and Sampling Southern BC Sport Fishery
(2010: $80,000), TR 25 Issue (Primary): 4, 6

The objective was to conduct or increase recreational creel survey activity in southern BC marine waters in areas and times currently unmonitored or with low survey effort and to verify assumptions regarding fishing effort. Progress: Creel surveys in key WCVI areas were expanded and extended mid-August through September 2011. Creel survey in Juan de Fuca extended October to March; extending survey to full-year in this area; Improvement: Increased sampling for CWTs will improve estimates of CWT expansions and resulting statistics (i.e. stock specific impacts, cohort size, ERs) and model outputs. Success: Very likely.

12) Tagging Increased size at release Harrison, (2010: $80,000)
TR 25 Issue (Primary): 2

The objective is to investigate an alternative release strategy, increased smolt size at release, of Harrison Chinook salmon indicator smolts to improve survival to return. This is incremental tagging to the standard release. Progress: This is the second year of this alternate release strategy. Improvement: If successful this program would replace the more costly indicator program at Chilliwack Hatchery and allow the increased tagging level to be sustained after the CWT Improvement Program has ended. Success: To be determined when brood year / CWT returns are complete.

13) Computer Programming and Sampling Protocols: Barcodes (2010: $50,000)
TR 25 Issue (Primary): 13

The objective was a feasibility study to investigate the implementation of automated technology for labeling and processing head recoveries to improve the efficiency and accuracy of reporting while reducing the cost of data capture and processing. This system is currently being used by US agencies. Progress: CDFO staff have consulted with US agencies using similar equipment, and toured ADF&G and WDFW labs to view their procedures and application to Canadian programs. Improvement expected: Automating data entry for head labels in field and lab will facilitate improved data quality (for example, reduce data entry errors, improve timeliness of reporting recoveries, improve DFO management of shipping heads from sampling locations to lab). Success: Yes.

14) Programming Support: GIS Mapping Sport Locations (2010: $40,000)
TR 25 Issue (Primary):

The objective is to digitally capture spatial information on recreational catch and CWT recovery locations so that catch estimates and CWT recoveries can be accurately assigned to management regulations. This project includes coordination with area staff to collect spatial information. Progress: Spatial referencing information for Southern BC sport locations were captured in a DFO database. A web-based GIS tool is under development to allow analysts to review head recoveries from anglers in the context of catch and regulations. Improvement: This system will improve DFO's ability to review representative and completeness of the sport sampling program. Success: Yes.

15) Bella Coola River FN Net Fishery CWT Sampling (2010: $10,000)TR 25 Issue (Primary): 4,10

The objective was to improve the sampling rate in the terminal First Nations fishery. Progress: the Bella Coola First Nations have expanded catch monitoring programs to collect CWT samples and improve the precision of the catch estimate. Improvements: The Bella Coola River First Nation fishery caught 3,200 fish, 775 were examined for fin clips, and 76 heads collected for CWT dissection. Success: Yes.

16) Atnarko River Sport Fishery Catch Estimation and CWT sampling (2010: $5,000)
TR 25 Issue (Primary): 4,6

The objective was to improve the sampling rate in the terminal sport fishery.
Progress: Unfortunately, the creel survey program did not proceed in 2010 due to staffing issues. CDFO recognizes this is a gap for improvement in 2011. Success: No.

17) Cowichan River First Nation Fishery CWT Sampling (2010: $2,000)
TR 25 Issue (Primary): 4,10

The objective was to improve monitoring of Food, Social and Ceremonial (FSC) fishery and increase the return rate of heads from adipose clipped Chinook salmon in that fishery.
Progress: An information session was held by Cowichan Tribes Biological Group to provide information on the FSC monitoring, CWT head recovery program, and Chinook salmon stock management. Improvements: the Cowichan First Nations have expanded catch monitoring programs to collect CWT samples from First Nations fisheries. Head Recovery depots were installed in the community, at the Cowichan River Hatchery and the Cowichan Tribes Office in Duncan. Success: Yes.

18) CWT Placement Study (2010: $10,000)
TR 25 Issue (Primary): 1, 6

The objective was to compare the retention of CWTs using manual and automated tagging methodology of Chinook salmon indicator stocks. Progress: Data on the accuracy of tag placement and on the presence/absence of mechanical scratches on CWTs obtained from Canadian escapement samples, 1988-2010, were summarized and entered into the Tag Placement database. Improvements: This database will assist CDFO in the evaluation of potential benefits in the quality of tag application through use of automated tagging trailers.
Success: Yes.

Table 5-1. Canadian CWT Improvement Projects approved for FY2011.

Project Category	TR25 Issue	Project Title	Cost ($Can)
Increased CWT Marking of CN Indicators	2	Incremental tagging of 12 Indicator Stocks (Robertson Creek, Cowichan, Big Qualicum, Quinsam, Lower Shuswap, Nicola,Chilliwack, Harrison, Taku, Stikine, Kitsumkalum,and Atnarko)*	$342,000
Increased Deadpitch CWT Recovery Effort, all Indicators	5	Increased effort in CWT recovery in indicator escapement programs (Quinsam, Cowichan, Big Qualicum, Chilliwack, Harrison, and Nicola)*	$80,500
Agency Staffing (Programmer, Catch QA/QC Analyst, CWT Recovery Coordinator)	4,7,8,9,10, 11,14,15,17 &18	Regional CWT Datasystem Programming, Regional CWT and Catch Estimation QA/QC, and Regional Sport & FN Fishery CWT Recovery Coordination *	$250,000
Increased Head Recovery Costs	2, 4, 5, 7	CWT Head Lab Processing and Data Management*	$95,000
Low Sample Rates in Terminal Fisheries, Sport and FN CWT recovery improvements	4,7,9,10 & 11	Regional Commercial, Sport & FN Fishery CWT Recovery Improvements*	$130,000
Low Sample Rates in Terminal Fisheries, FN Fishery CWT recovery improvements	4 & 10	Improvements in CWT Recovery in Terminal First Nations Fisheries (Fraser River, Georgia Strait, WCVI, Bella Coola, and Cowichan)*	$72,000
Uncertainty in Estimates of Escapement or Terminal Fishery Catch	1& 6	Atnarko Chinook salmon CWT Indicator Stock*	$84,500
Increased CWT Marking of CN Indicators	2	CWT Placement Evaluation, Comparison of Manual versus Automated Tagging	$10,000
Increased CWT Marking of CN Indicators	2	Automated Tagging Trailer purchase	$436,000
		Canada Total	$1,500,000
Total Contingency Projects -- Canada			$267,100

5.2 U.S. Projects Undertaken in Fiscal Year 2010

A total of 12 U.S. projects were funded in FY 2010, representing a total expenditure of $1,494,433. These projects are described below. Each description includes the CWT issue listed in the PSC CWT Workgroup Tech Report 25 (PSC 2008) that the program is intended to address (Table 5-3). The verbiage reflects progress through 30 November, 2011.

1) Oregon CWT Data Reporting System ($410,000 USD)
TR 25 Issue (Primary): 13, 14, 15, 17, 18

The objective for this project was to replace the antiquated ODFW CWT reporting system to increase accuracy, timeliness and accessibility to CWT data for Oregon fisheries, escapements and hatcheries. Purchase of new data loggers was included, coordinated to match those purchased by WDFW. This is an 18-month grant. Progress: the project is on target to finish by Oct., 2011 and is about 80-90% complete. Four staff of the contractor and 5 staff of ODFW are involved and the path taken appears to be professional and proceeding well. Contemporary products from Microsoft are being used, which are common and supported. ODFW will replace their fish-ticket reporting system at the same time. Improvement: The project will eliminate the delays, omissions and sometimes poor quality of past data and reporting will be 5-6 months earlier. Success: Likely. No future request is anticipated for this project.

2) Washington CWT Data Reporting System ($235,519 USD)
TR 25 Issue (Primary): 13

The objectives were to replace the CWT reading system and upgrade a majority of the WDFW CWT reporting system to increase accuracy, timeliness and accessibility to CWT data for Washington fisheries, escapements and hatcheries. This was a 12-month grant, which has been extended to September, 2012. Progress: the project is about 50% complete. Replacement of the old method of reading CWTs via bioscopes (the first third of the project) has been completed successfully and is 2x faster and more accurate. The web-based system front end, which eliminates versioning, updating and access problems is in progress. The re-designed back end DB system will utilize standard agency lookup tables and integrate with WDFW's salmon conservation reporting engine (SCoRE). Improvement: The project will improve accuracy and timeliness of reporting, to "near real-time reporting". Success: Likely. No future request is anticipated for this project.

3) SEAK Seine CWT Expansion Strata ($28,845 USD)
TR 25 Issue (Primary): 7

The objectives were to redo the reporting strata for the seine fishery in SEAK in order to be able to use samples from mixed districts, raise the sampling rate, reduce strata with few or no fish sampled, and provide more accurate CWT data for this fishery. This was a 12-month grant. Progress: the project is complete. By combining statistical weeks into bi-weekly periods and by combining some districts, past sampling numbers were boosted 10-15% and unsampled strata decreased substantially. Improvement: The project will improve accuracy and precision of Chinook salmon CWT data for SEAK, both past and future. Success: Yes. No future request is anticipated for this project.

4) SEAK Tag Lab Increased Heads ($64,980 USD)
TR 25 Issue (Primary): 7

The objective was to provide funds to cover a portion of cost the associated with the increased number of "NO TAGS" (heads from ad-clipped Chinook salmon in mass marking programs, but

without CWTs) in heads shipped to the SEAK CWT Lab, for freight and personnel. This was a 12-month grant. Progress: the project is complete. The occurrence of heads from Chinook salmon with ad-clips, but without CWTs has increased from 10% to over 50% in the past few years in most SEAK fisheries due to mass marking in WA, OR and ID. Improvement: The project helped maintain the timeliness (inseason) and accuracy of CWT data from Chinook salmon caught in SEAK. Success: Yes. Future requests are anticipated for this project.

5) Stikine River Smolt Tagging ($121,264 USD)
TR 25 Issue (Primary): 1, 2

The objective was to tag wild Chinook salmon smolts in the Stikine River in spring 2011 (1st US funding, 3rd year Canada), to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction in future years for TBR and CTC work. This stock is a PSC escapement indicator stock, produces 30,000 to 70,000 adults annually and the terminal run is jointly managed. Note that this is a joint stock assessment project and Canada CWTIT funds supported part of this project in 2009 and 2010. No surrogate hatchery exists. Progress: This project is complete for this funding year. Over 32,000 wild smolts were tagged with CWTs in 2011, compared to 35,000 in 2010 and 42,000 in 2009; the minimum tagging goal is 30,000. This level was exceed all 3 years due to improvements in capture methodology with beach seines and night sets. Improvement: This project will provide high-quality data for which to manage the terminal run with Canada and account for harvest sharing, and to estimate parameters directly from wild-stock tagging. Success: Yes. Future requests are anticipated for this project.

6) Chilkat River Smolt Tagging ($91,119 USD)
TR 25 Issue (Primary): 1, 2

The objective was to tag wild Chinook salmon smolt in the Chilkat River in fall 2010, to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction in future years for the CTC and ADF&G. The Chilkat River is a PSC escapement and exploitation rate indicator stock for northern inside SEAK and produces 4,000 to 10,000 adults annually. No surrogate hatchery exists. Progress: This project is complete for this funding year. About 38,000 wild Chinook salmon were tagged with CWTs in fall 2011, which is a record for this stock. Improvement: This project will provide high-quality data for this wild stock and use as a CTC ERA stock. Success: Yes. Future requests are anticipated for this project.

7) Elk River Tagging, Creel and Escapement ($112,565 USD)
TR 25 Issue (Primary): 1, 3

The objectives were to tag Chinook salmon from the Elk River Hatchery, the proposed mid-Oregon CWT indicator stock, to estimate freshwater harvest and escapement and sample them for CWTs and other biological data. A creel project was used to estimate harvest. Progress: The smolt tagging goal (325,000) was met, the harvest estimate is 560 (501 sampled) and the spawner surveys and sampling were still in progress. Completion of the inriver work will likely provide precise estimates of inriver harvest, escapement and expansions for CWTs.

Improvement: This project will likely provide high quality data for this mid-Oregon Coast stock and permit use as a CTC exploitation rate analysis stock. Success: Likely. Future requests are anticipated for this project.

8) Lower Columbia River Esc. CWT Expansions ($20,112 USD)
TR 25 Issue (Primary): 6

The objective was to develop sampling designs to produce unbiased expansions for CWT recoveries in the lower Columbia River escapements for Tule Chinook salmon stocks and to estimate hatchery and wild components within stocks. Improved escapement estimation and bias is sex, age and origin examination were also part of this process. Progress: This project was completed in 2011. Significant improvements in escapement enumeration, standardization of methodology, accurate and unbiased CWT expansions and associated variance estimates were made. Improvement: This project provides substantially improved and unbiased expansions of CWTs from LCR Tule stocks on the spawning grounds. Success: Yes. Future requests are unknown.

9) SEAK—Wanding to Reduce the Number of NO TAGs Shipped ($42,580 USD)
TR 25 Issue (Primary): 7

The objective was to purchase 6 hand-held wands to reduce the number of heads shipped to the Alaska Tag Lab from ad-clipped Chinook salmon, but without CWTs, i.e. "NO TAGs", in the SEAK winter troll fishery, after training and quality control tests were completed. A pilot study was conducted on a portion of the winter troll fishery to detect CWTs in Chinook salmon with adipose fins (from DIT groups). Progress: This project is complete; 2,663 fish were sampled, and of 384 fish with ad-clips, 195 signaled positive. Validation is complete. Improvement: This project will keep sampling rates higher by improving sampling efficiency by reducing the man-power associated with recording, processing and shipping NO TAGs. Success: Yes. Future requests are unknown.

10) SEAK—Increased Sampling in Net and Terminal Fisheries ($43,408 USD)
TR 25 Issue (Primary): 4,7

The objectives was to increase the sampling rates in commercial net (seine and drift gillnet) and terminal commercial fisheries, by funding additional port samplers in 3 ports. The terminal fisheries had been sampled at rates >20% in the 1980s, which showed these areas to be mostly Alaskan hatchery stocks. Due to the presence of some other PSC ERA stocks, this project was implemented as noted in PSC (2008). Progress: Sampling for this project was completed during 2010 and rates were increased in most fisheries; however, low catches of Chinook salmon in purse seine fisheries hampered some efforts. Improvement: Higher sampling rates were achieved in SEAK net and terminal commercial fisheries. Success: Yes. Future requests are likely.

11) Puget Sound Freshwater Sport Sampling ($182,455 USD)
TR 25 Issue (Primary): 4, 6

The objectives were to increase the sampling rates in freshwater sport fisheries in Puget Sound and to develop an indirect method for estimation of the number of CWTs present in these fisheries in the past and future. Intensive creel surveys were conducted on 4 rivers (Skagit, Skokomish, Nisqually and Skykomish) to estimate total harvest, effort, CWTs, marked rate, unmarked mortality and to collect biological data. Progress: Sampling for this project was completed during 2010 and results were successful for the direct creel and sampling efforts conducted. Improvement: Higher sampling rates were achieved in these Puget Sound freshwater fisheries in 2010. This project will likely be fruitful for developing the indirect and less costly methods of estimating CWTs in these fisheries. Success: Yes for direct sampling. Future requests are anticipated.

12) Decision Theoretic Tool for Sampling and Marking ($141,586 USD)
TR 25 Issue (Primary): Chapter 6

The objective was to develop a Decision-theoretic tool (DTT) to evaluate the effects of CWT improvement projects on Coefficients of Variation (CVs) about estimates of exploitation rates for Chinook salmon. The DTT provides the capacity to simultaneously evaluate projects proposed by multiple jurisdictions which involve changes in fishery and escapement sampling rates, estimates of catch or escapement, and tagging levels. Progress: This project was started late due to contracting startup difficulties, but is now 60-70% complete. The tool, largely based on the guidance provided in Appendix B of PSC TR25, would consist of four primary components: (1) a menu driven user interface (UI); (2) a simple, steady-state forward cohort model to approximate CWT recoveries resulting from changes in survival and fishery harvest rates; (3) a module to estimate CVs about exploitation rates based on sampling rates, tagging levels, and uncertainty relating to fishery catch/escapement estimates for projects individually or collectively; (4) a query system to determine required tagging and sampling rates to achieve a desired CVs about estimates of exploitation rates; and (5) a module that identifies the projects that provide the greatest improvement in selected CVs at least cost. The DTT is being coded in Microsoft Visual Basic . Approximately two-thirds of the coding has been completed. The DTT algorithms and code are undergoing refinement, testing and validation. A macro-level code description of the user interface under development is attached. Development of support programs and methods descriptions for preparation of data sets for testing and is nearly complete. A sample data set, based on CWT release groups undergoing evaluation for a new base period calibration of the Pacific Salmon Commission's (PSC) Chinook Model, and a set of CWT project descriptions has been prepared for testing. Improvement: DTT will provide a means to guide funding decisions regionally and in PST area; for single-stocks and multiple stock/multiple fisheries. Success: likely. Future funding requests are not anticipated.

5.3 U.S. Projects Undertaken in Fiscal Year 2011

Projects were solicited through a request for proposals released for 3 months in late 2010. Projects were evaluated by the CWTIT on the basis of those providing the most perceived benefits to the CWT program for the associated cost. Table 5-1 provides a summary of the recommended projects by project category. Project categories are based on the themes specified

in PSC Technical Report 25 (PSC 2008). Projects were scored and ranked individually by U.S. CWTIT members and consensus was subsequently reached to develop draft recommendations. These were deliberated by the bilateral CWTIT. The U.S. PSC approved the following list of recommendations. The projects recommended by the U.S. represent a complete expenditure of the $1.5 million available under this program for 2011. The CWTIT believes that the recommended projects will provide short- and long-term benefits to the CWT program and benefits to abundance–based management of Chinook salmon under jurisdiction of the PST.

Table 5-2. U.S. CWT Improvement Projects approved for FY2011.

Project Category	TMP25 Item(7)	Project Title	Cost ($1,000)
Hatchery Stock tagging, Creel and Esc. estimation and sampling	1,3	Elk River Tagging, Creel and Esc CWT Recovery	$140,118
Wild Stock tagging with no hatchery indicator	1,2	Stikine River Smolt Tagging	$113,818
Wild Stock tagging with no hatchery indicator	1,2	Chilkat River Smolt Tagging	$97,715
Indicator stock tagging	1	CWT of Nisqually River Chinook New Integrated Hatchery Program	$48,282
Indicator stock tagging of wild vs. hatchery stock	1,3	Evaluation of Salmon River Hatchery Stock to Represent Natural Stocks of North Oregon Coast	$144,494
Sampling in fisheries with low sampling rates	4,6	Puget Sound Freshwater Sport Sampling	$182,824
Sampling in fisheries with low sampling rates	4,7	SEAK—Increased Sampling in Net and Terminal Fisheries	$69,650
Increased head recovery cost in fisheries	7	SEAK Tag Lab Increased Head Cost Due to NO TAGs	$69,773
Low sampling rates in mixed stock fisheries	7	SEAK Marine Sport Catch Sampling Increase	$79,725
Sampling efficiency, data timeliness and accuracy	7, 13	SEAK Commercial Chinook CWT Sampling Data Loggers	$49,590
Low sample rates in mixed-stock fisheries	7	Sampling Washington Ocean Salmon Fisheries	$353,100
Low sample rates in mixed-stock fisheries	7	Improvements to Oregon Ocean Troll and Columbia River Recreational CWT Sampling	$100,136
PSC – CWTIT Workshop and future CWT Improvement Project	TBD	Support Costs to Hold Annual Bilateral Workshop and fund U.S. CWT Project	$50,775
		GRAND TOTAL	$1,500,000

Table 5-3. Key to issues in PSC Technical Report 25.

TR 25 Issue No.	Description
1	Incomplete and inconsistent representation of production regions
2	Determination of tagging levels
3	Representation of hatchery production
4	Low sample rates in terminal fisheries
5	Low sample rates in escapements
6	Uncertainty in estimates of escapement or terminal fisheries
7	Low sample rates in highly mixed stock fisheries
8	Uncertainty in estimates of catch in high mixed stock fisheries
9	Non-representative sampling
10	Incomplete coverage of fisheries or escapement
11	Voluntary sport fishery sampling programs
12	Sampling methods to facilitate sampling of mark selective fisheries and CWT processing
13	Timeliness of reporting
14	Incomplete/no exchange of CWT data
15	Inter/intra-agency coordination
16	Unclear authority to establish and enforce standards
17	Updating data is difficult and updates cannot be tracked
18	Validation is inadequate
Chapter 6	Decision Theoretic Tool

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Appendices

Appendix A Relationship between exploitation rate indicator stocks, escapement indicator stocks, model stocks, and additional management action stocks identified in the PST annex.

LIST OF APPENDIX A TABLES

Appendix A.1 Indicator stocks for Southeast Alaska and Transboundary Rivers. 82
Appendix A.2 Indicator stocks for Canada. 83
Appendix A.3 Indicator stocks for Puget Sound. 84
Appendix A.4 Indicator stocks for the Washington Coast. 85
Appendix A.5. Indicator stocks for Columbia River and Oregon Coast. 86

Appendix A.1 Indicator stocks for Southeast Alaska and Transboundary Rivers.

Area	Annex Stock Group1	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
SEAK/TBR			Spring	Taku	19,000–36,000	Alaska South SE	9,110	NA	AKS
				Stikine	14,000–28,000			NA	
Yakutat				Situk	500–1,000			NA	
				Alsek	3,500–5,300			NA	
SEAK Northern Inside				Chilkat	1,750-3,500			NA	
				King Salmon	120–240			Alaska Spring (Little Port Walter, Neets Bay Hatchery, Whitman Lake Hatchery, Carroll Inlet Releases, Deer Mountain Hatchery, Crystal Lake Hatchery)	
SEAK Central Inside				Andrew Creek	650–1,500				
SEAK Southern Inside				Unuk	1,800–3,800				
				Chickamin	450–900				
				Blossom	250–500				
				Keta	250–500				

1 SEAK fisheries will be managed to achieve escapement objectives for Southeast Alaska and Transboundary River Chinook salmon stocks.
NA = not available

Appendix A.2 Indicator stocks for Canada.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
NBC-Area 1	North / Central British Columbia	Yakoun	Summer	Yakoun	Escapement goal range by stock	North / Central BC	117,500	Kitsumkalum	KLM
NBC-Area 3		Nass	Summer	Nass					
NBC-Area 4		Skeena		Skeena					
CBC-Area 8			Spring	Dean					
CBC-Area 9			Spring/Fall	Rivers Inlet					
WCVI	West Coast Vancouver Island Falls	Artlish, Burman, Gold, Kauok, Tahsis, Tashish, Marble	Fall	WCVI Aggregate (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	Escapement goal range for aggregate	WCVI Natural	42,734	Robertson Creek	RBT
						WCVI Hatchery	6,472		
Upper Strait of Georgia	Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	Summer/ Fall	Upper Strait of Georgia (Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish)	Escapement goal range for aggregate	Upper Strait of Georgia	23,300	Quinsam	QUI
Lower Strait of Georgia	Lower Strait of Georgia		Summer/ Fall			Lower Strait of Georgia Hatchery	5,318	Puntledge	PPS
								Big Qualicum	BQR
		Cowichan, Nanaimo	Fall	Lower Strait of Georgia (Cowichan / Nanaimo)	Escapement goal range for aggregate	Lower Strait of Georgia Natural	21,935	Cowichan	COW
								Nanaimo	NAN
Fraser River	Fraser Early	Upper Fraser Mid Fraser Thompson	Spring	Fraser Spring-run Age 1.2	Escapement goal range by stock	Fraser Early	93,700	Nicola	NIC
				Fraser Spring-run Age 1.3				Dome	DOM
			Summer	Fraser Summer-run Age 1.3				NA	NA
				Fraser Summer-run Age 0.3				Lower Shuswap	SHU
	Fraser Late	Harrison River	Fall	Harrison River	75,100-98,500	Fraser Late	75,100	Chilliwack	CHI

Appendix A.3 Indicator stocks for Puget Sound.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
North/ Central Puget Sound	North Puget Sound Natural Springs	Nooksack	Spring	Nooksack	Escapement goal range by stock	Nooksack Spring	4,000	Nooksack Spring Fingerling Nooksack Spring Yearling	NSF NKS
		Skagit		Skagit spring				Skagit Spring Fingerling Skagit Spring Yearling	SKF SKS
	North Puget Sound Natural Summer/Falls	Nooksack	Summer/ Fall		Escapement goal range by stock	Nooksack Fall	11,923	Samish Fall Fingerling	SAM
		Snohomish		Snohomish		Snohomish Wild	5,250	Skykomish	SKY
		Skagit group		Skagit sum/fall		Skagit Wild	9,778	Skagit Summer Fingerling	SSF
		Lake Washington		Lake Washington Falls		Puget Sound Natural Fingerling	16,966	NA	
		Green River		Green River					
		Stillaguamish		Stillaguamish		Stillaguamish Wild	2,000	Stillaguamish Fall Fingerling	STL
								Nisqually Fall Fingerling	NIS
								Univ. of Washington Accelerated Fall	UWA
Hood Canal	Not an Annex stock		Fall					George Adams Fall Fingerling	GAD
South Puget Sound	Not an annex stock		Fall			Puget Sound Hatchery Fingerling	24,769	South Puget Sound Fall Fingerling	SPS
						Puget Sound Hatchery Yearling	9,136	South Puget Sound Fall Yearling	SPY
								Squaxin Pens Fall Yearling	SQP
			Spring					White River Spring Yearling	WRY

NA = not available

Appendix A.4 Indicator stocks for the Washington Coast.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
WA Coast/ Juan de Fuca	Washington Coastal Fall Naturals	Hoko	Fall	Hoko	Escapement goal range by stock	Washington Coastal Wild	21,500	Elwha Fall Fingerling	ELW
								Hoko Fall Fingerling	HOK
		Grays Harbor		Grays Harbor Fall				NA	
		Queets		Queets Fall				Sooes Fall Fingerling	SOO
		Hoh		Hoh Fall				NA	
		Quillayute		Quillayute Fall				NA	
		Queets		Queets Fall				Queets Fall Fingerling	QUE
	Not an annex stock		Fall			Washington Coastal Hatchery	6,703	NA	
	Not an annex stock		Spring	Grays Harbor Spring				NA	
	Not an annex stock		Spring/ Summer	Queets Spring/Summer				NA	
				Hoh Spring/Summer				NA	
	Not an annex stock		Summer	Quillayute Summer				NA	

NA = not available

Appendix A.5. Indicator stocks for Columbia River and Oregon Coast.

Area	Annex Stock Group	Annex Indicator Stocks	Run Type	Escapement Indicator Stock	Escapement Objective	Model Stock	Escapement Goal in Model	Exploitation Rate Indicator Stock	CWT Acronym
Columbia River	Not an Annex stock		Spring		45,000	Cowlitz Spring Hatchery	2,500	NA	
						Willamette River Hatchery	13,500	Willamette Spring	WSH
	Columbia River Summers	Mid-Columbia Summers	Summer	Mid Columbia Summer	17,8571	Columbia River Summer	17,857	Columbia Summers	SUM
	Columbia River Falls		Fall			Fall Cowlitz Hat.	8,800	Cowlitz Tule	CWF
						Spring Creek Hatchery	7,000	Spring Creek Tule	SPR
						Lower Bonneville Hatchery	26,200	Columbia Lower River Hatchery	LRH
		Upriver Brights		Columbia Upriver Bright	45,000	Columbia Upriver Brights	40,000	Columbia Upriver Bright	URB
								Hanford Wild	HAN
		Deschutes		Deschutes River Fall				NA	
						Lyons Ferry	3,430	Lyons Ferry	LYF
						Mid Columbia River Brights	12,500	NA	
		Lewis River		Lewis	5,700	Lewis River Wild	5,700	Lewis River Wild	LRW
North Oregon Coast	Far North Migrating Oregon Coastal Falls	Nehalem	Fall	Nehalem	6,989	Oregon Coast	62,382	Salmon River	
		Siuslaw		Siuslaw	12,925				
		Siletz		Siletz	2,944				
Mid-Oregon Coast	Not an Annex stock		Fall	Umpqua				NA	
				Mid South Oregon Coastal Falls				NA	

1 Interim goal for modeling based on stock recruitment analysis of model data.
NA – not available

Appendix B ISBM indices.

LIST OF APPENDIX B TABLES

Appendix B.1. ISBM Indices for Canadian fisheries based on CWT-based exploitation rate analysis (1999-2008). 88
Appendix B.2. ISBM Indices for U.S. fisheries based on CWT-based exploitation rate analysis (1999-2009). 90
Appendix B.3. ISBM Indices for Canadian fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. 91
Appendix B.4. ISBM Indices for U.S. fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. 92

Appendix B.1. ISBM Indices for Canadian fisheries based on CWT-based exploitation rate analysis (1999-2008).

	Escapement Indicator Stocks	CWT Indices[1]										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Lower Strait of Georgia	Cowichan	0.517	0.196	0.260	0.247	0.363[6]	0.284	0.132	0.191	0.043	0.242	0.400
	Nanaimo[5]	0.163	0.154	0.260	0.247	NA[7]	NA	NA	NA	NA	NA	NA
Fraser Late	Harrison River[3]	0.112	0.073	0.090	0.105	0.055[9]	0.032	0.058	0.032	0.035	0.031	0.058
North Puget Sound Natural Springs	Nooksack, Skagit	0.183 NA[2]	1.176 NA	0.040 NA	0.023 NA	0.046 NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.106 NA
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.021	0.123	0.040	0.063	0.006	0.018	0.028	0.079	0.268	0.073	0.247
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	0.431	0.083	0.060	0.248	0.496[10]	0.488	0.267	0.267	0.906	0.652	0.464
Puget Sound Natural Summer / Falls	Skagit	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Stillaguamish	0.194	0.111	0.145	NA	NA	0.027	0.057	0.074	0.192	NA	0.252
	Snohomish	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Washington	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Green River	0.171	0.154	0.350	0.323	0.328	0.162	0.085	0.109	0.076	0.106	0.208
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Washington Coastal Fall Naturals[4]	Hoko, Grays Harbor, Queets, Hoh, Quillayute	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Columbia River Falls[4]	Upriver Brights	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Deschutes	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lewis[3]	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Columbia R Summers[4]	Mid-Columbia Summers[3]	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Far North Migrating OR Coastal Falls[4]	Nehalem[3], Siletz[3], Siuslaw[3]	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

1 The CWT-based estimates, not the model estimates, are to be used in postseason assessments.
2 NA means not available because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).

3 Stock or stock group with an agreed CTC escapement goal.
4 Stock group not in Annex Attachment IV.
5 Indices for the Nanaimo stock are calculated from CWT recoveries for Cowichan; differences between Nanaimo and Cowichan stock indices are due to differences in terminal harvest.
6An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook salmon.
7 Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook salmon; indices for this stock will not be reported as their utility is questionable.

8Although model-based indices were previously calculated separately for Cowichan and Nanaimo Chinook salmon; these did not adequately represent impacts on either LGS stock. This is because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
9 The terminal sport harvest rates for Chilliwack Hatchery Chinook salmon, the indicator stock, were removed from the calculation for the Harrison River naturals this year because sport harvest has been essentially zero on the natural population.
10 A review of the approach used to calculate both the CWT-based and model data-based indices for the WCVI naturals was carried out in 2008. A similar approach was adopted for both indices but due to modifications to the formerly used procedures, the historical time series of values was updated.
11For the Canadian ISBM fisheries, both Lake Washington and Green are assumed to have the same distribution and thus the same index value.
12 ISBM indices for WCVI naturals are based on information from Robertson Cr. hatchery stock, including terminal harvest rates. Prior to this report, harvest rates for terminal net and sport fisheries were treated as equal between the naturals and the hatchery indicator. However, this ignored the fact that since 1999, there has been no terminal net harvest of the vast majority of natural stocks on the WCVI. Consequently, indices for WCVI naturals were adjusted to reflect this zero terminal net harvest rate. In addition, some inconsistencies were noted in the treatment of terminal harvest rates between the model and CWT indices for this stock group. These inconsistencies were eliminated.
13 The US CWT based indices for Fraser Late from 2005 onward do not accurately reflect the impacts on the natural stock because a considerable proportion of the recoveries in the US fisheries have occurred in mark-selective fisheries in which only clipped hatchery-origin fish are retained. The US indices since 2005 indicate greater impacts than would have occurred on the natural stocks and are no longer being reported.
14 NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.

Appendix B.2. ISBM Indices for U.S. fisheries based on CWT-based exploitation rate analysis (1999-2009).

	Escapement Indicator Stocks	CWT Indices[1]										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Washington Coastal Fall Naturals	Hoko	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Grays Harbor	0.430	1.630	0.860	0.540	0.150	0.530	0.560	0.520	0.790	0.390	0.700
	Queets	1.000	0.850	1.440	0.840	0.850	0.840	2.050	0.600	1.050	0.610	0.450
	Hoh	1.540	2.750	1.660	0.950	1.340	1.220	1.030	1.290	2.230	0.950	1.220
	Quillayute	1.300	2.470	1.480	1.420	0.990	1.150	1.030	1.180	1.470	1.160	1.970
Columbia River Falls	Upriver Brights	1.370	2.530	1.350	1.320	1.430	1.740	1.780	3.080	3.100	1.830	2.790
	Deschutes	0.510	0.710	0.520	0.590	0.049	0.510	0.670	0.580	0.510	1.860	2.360
	Lewis[3]	0.000	0.360	0.580	0.560	1.030	0.170	0.980	1.330	0.790	0.630	0.140
Puget Sound Natural Summer / Falls	Skagit	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Stillaguamish	0.120	0.040	0.890	NA	NA	0.010	0.220	0.080	0.120	NA[2]	0.200
	Snohomish	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lake Washington	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Green R	0.500	0.700	1.180	1.070	1.030	1.010	0.170	0.370	0.380	0.280	0.290
Fraser Late	Harrison River[3]	0.470	0.130	0.310	0.410	0.640	0.320	NA[13]	NA	NA	0.260	0.150
Columbia R Summers	Mid-Columbia Summers[3]	1.640	4.820	5.320	7.250	10.040	2.690	6.080	0.480	1.840	6.800	1.310
Far North Migrating OR Coastal Falls	Nehalem[3]	1.960	1.970	1.940	2.170	3.110	1.800	2.000	3.480	2.010	0.920	0.590
	Siletz[3]	0.820	1.160	1.190	1.310	1.590	2.290	1.190	2.340	1.600	0.670	0.730
	Siuslaw[3]	1.220	2.450	2.180	2.560	3.820	1.030	1.630	2.230	1.000	0.640	1.070
North Puget Sound Natural Springs	Nooksack	0.440	0.000	0.040	NA[2]	NA	NA	NA	NA	NA	0.210	0.520
	Skagit	NA[2]	NA	NA	1.120	NA	NA	NA	NA	NA	NA	NA
Lower Strait of Georgia[4]	Cowichan,	NA[2]	0.690	11.350	5.780	4.990	7.250	10.230	15.070	1.550	4.040	5.140
	Nanaimo[3,7]	NA[2]	0.690	11.350	5.780	4.990						
Upper Strait of Georgia[4]	Klinaklini, Kakweiken, Wakeman, Kingcome, Nimpkish	NA[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fraser Early (spring and summers)[4]	Upper Fraser, Mid Fraser, Thompson	NA[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Coast Vancouver Island Falls[4]	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	NA[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NA[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix B.3. ISBM Indices for Canadian fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 2008 Revised Annexes.

	Escapement Indicator Stocks	Model Indices												
		1999 CLB0107	2000 CLB0107	2001 CLB0107	2002 CLB0206	2003 CLB0308	2004 CLB0404	2005 CLB0506	2006 CLB0604	2007 CLB0705	2008 CLB0807	2009 CLB0907	2010 CLB1007	2011 CLB1106
Lower Strait of Georgia	Cowichan	0.304	0.232	0.325	0.541	0.490	0.593	0.381 [8]	0.590 [8]	0.240 [8]	0.315 [8]	0.494 [8]	0.203 [8]	0.367 [8]
	Nanaimo[3]	0.209	0.113	0.246	0.190	0.498	0.695							
Fraser Late	Harrison River[3]	0.309	0.198	0.336	0.302	0.352	0.719	0.332	0.294	0.211	0.208	0.245	0.138	0.193
North Puget Sound Natural Springs		0.233	0.156	0.241	0.195	0.251	0.273	0.314	0.993	0.563	0.470	0.988	0.568	0.732
	Nooksack, Skagit	NA [2]	NA	NA	NA	0.251	0.273	0.314	0.993	0.563	0.470	0.988	0.568	0.731
Upper Strait of Georgia	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	0.174	0.118	0.314	0.272	0.649	0.971	0.649	0.584	0.146	0.622	0.128	0.122	0.578
Fraser Early (spring and summers)	Upper Fraser, Mid Fraser, Thompson	0.125	0.124	0.210	0.145	0.661	0.718	0.654	0.610	0.159	0.128	0.094	0.121	0.222
West Coast Vancouver Island Falls	WCVI (Artlish, Burman, Kaouk, Tahsis, Tashish, Marble)	0.365	0.327	0.244	0.342	0.744	0.927	0.728	1.082	0.133	1.490	0.137	0.122	0.491
Puget Sound Natural Summer / Falls	Skagit	0.197	0.119	0.217	0.172	0.436	0.438	0.465	1.092	0.718	0.724	1.097	0.709	0.745
	Stillaguamish	0.355	0.234	0.469	0.375	0. 513	0.567	0.587	1.166	0.821	0.796	1.123	0.791	0.793
	Snohomish	0.185	0.116	0.222	0.176	0.435	0.445	0.457	1.101	0.736	0.721	1.098	0.718	0.744
	Washington	0.332	0.202	0.355	0.275	0.508	0.446	0.497 [11]	0.898	0.735	0.722	0.918	0.690	0.752
	Green River	0.333	0.202	0.356	0.275	0.508	0.466	0.497 [11]	0.914	0.752	0.721	0.919	0.670	0.756
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	0.237	0.254	0.613	0.584	0.689	0.804	0.680	0.626	0.202	0.593	0.224	0.177	0.598
Washington Coastal Fall Naturals[4]	Hoko, Grays Harbor, Queets, Hoh, Quillayute	0.201	0.161	0.354	0.292	0.292	0.435	0.457	0.363	0.194	0.387	0.328	0.134	0.332
Columbia River Falls[4]	Upriver Brights	0.124	0.104	0.377	0.429	0.686	0.663	0.640	0.523	0.129	0.612	0.517	0.110	0.620
	Deschutes	0.124	0.104	0.377	0.429	0.686	0.663	0.640	0.523	0.129	0.612	0.517	0.110	0.620
	Lewis[3]	0.056	0.180	0.180	0.171	0.515	0.480	0.546	0.315	0.030	0.432	0.832	0.920	0.994
Columbia R Summers[4]	Mid-Columbia Summers[3]	0.109	0.085	0.144	0.198	0.352	0.333	0.406	0.335	0.119	0.361	0.285	0.084	0.359
Far North Migrating OR Coastal Falls[4]	Nehalem[3], Siletz[3], Siuslaw[3]	0.094	0.110	0.505	0.514	0.689	0.672	0.674	0.515	0.078	0.088	0.543	NA	0.529

Appendix B.4. ISBM Indices for U.S. fisheries, from the Chinook model (1999-2010) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 2008 Revised Annexes.

	Escapement Indicator Stocks	Model Indices												
		1999 CLB0107	2000 CLB0107	2001 CLB0107	2002 CLB0206	2003 CLB0308	2004 CLB0404	2005 CLB0506	2006 CLB0604	2007 CLB0705	2008 CLB0807	2009 CLB0907	2010 CLB1007	2011 CLB1106
Washington Coastal Fall Naturals	Hoko	0.39	0.34	0.56	0.48	0.682	0.966	0.444	0.442	0.401	0.305	0.284	0.130	0.419
	Grays Harbor	0.440	0.430	0.450	0.840	0.494	0.573	0.222	0.544	0.504	0.45	0.404	0.382	0.549
	Queets	0.880	0.420	0.440	1.050	1.063	0.932	1.023	1.022	1.014	1.007	0.508	0.285	0.327
	Hoh	1.390	0.730	0.760	1.260	1.208	1.214	1.499	1.493	1.111	1.457	0.981	0.987	0.760
	Quillayute	1.140	0.720	0.750	1.310	1.292	1.139	1.133	0.673	0.883	0.851	0.881	0.963	1.058
Columbia River Falls	Upriver Brights	1.020	1.090	0.990	0.910	1.022	0.906	0.734	0.814	0.726	0.701	0.798	0.801	0.841
	Deschutes	1.020	0.880	0.740	0.550	0.561	0.475	0.483	0.437	0.493	0.428	0.461	1.004	1.044
	Lewis[3]	0.110	0.160	1.700	0.930	0.851	1.008	1.058	1.861	1.466	0.436	0.470	0.505	0.426
Puget Sound Natural Summer / Falls	Skagit	0.170	0.210	0.780	0.270	0.406	0.157	0.195	0.258	0.325	0.321	0.292	0.261	0.789
	Stillaguamish	0.140	0.140	0.400	0.200	0.184	0.224	0.185	0.493	0.152	0.137	0.446	0.117	0.169
	Snohomish	0.040	0.050	0.600	0.150	0.072	0.110	0.891	0.199	0.138	0.165	0.202	0.125	0.211
	Lake Washington	0.500	0.480	0.590	1.250	0.768	0.411	0.373	0.613	0.391	0.392	0.768	0.517	0.387
	Green R	0.500	0.480	0.600	0.350	0.263	0.260	0.202	0.361	0.278	0.380	0.555	0.520	0.236
Fraser Late	Harrison River[3]	0.660	0.390	0.620	0.720	0.981	1.058	0.670	0.787	0.563	0.378	0.410	0.209	0.497
Columbia R Summers	Mid-Columbia Summers[3]	0.110	0.090	0.140	0.820	0.794	0.715	0.545	0.696	0.943	1.254	1.236	1.142	1.398
Far North Migrating OR Coastal Falls	Nehalem[3]	2.670	2.660	2.750	2.610	2.346	2.230	2.090	1.912	2.183	1.968	2.003	0.916	2.146
	Siletz[3]	1.810	1.790	1.870	1.330	1.302	1.288	1.233	1.237	1.399	1.592	1.217	0.698	0.643
	Siuslaw[3]	0.940	0.930	0.950	3.340	2.856	2.816	2.643	1.095	1.241	0.971	1.632	2.028	1.427
North Puget Sound Natural Springs	Nooksack	0.150	0.200	0.010	0.000	0.121	0.974	0.222	0.121	NA	NA	0.107	0.181	0.484
	Skagit	ID	ID	0.070	0.060	0.119	0.663	0.213	0.161	NA	NA	0.143	0.245	0.271
Lower Strait of Georgia[4]	Cowichan, Nanaimo[5]	0.170 0.170	0.210 0.210	0.480 0.480	0.220 0.220	0.452 0.452	0.915 0.915	0.407[8]	0.271[8]	0.288[8]	0.333[8]	0.367[8]	0.216[8]	0.367[8]
Upper Strait of Georgia[4]	Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish	NC[13]	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Fraser Early (spring and summers)[4]	Upper Fraser, Mid Fraser, Thompson	0.080	0.150	0.700	0.150	0.277	0.839	0.257	0.224	0.219	0.100	0.156	0.111	0.239
West Coast Vancouver Island Falls[4]	WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble)	0.260	0.380	0.730	0.270	0.658	0.540	0.290	0.128	0.311	0.365	0.146	0.213	0.378
North / Central B. C.	Yakoun, Nass, Skeena, Area 8	NC[13]	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Appendix C Percent distribution of landed catch and total mortality among fisheries and escapement for exploitation rate indicator stocks by calendar year with analogous model stocks listed in parentheses.

These data result from cohort analysis of CWT recoveries for the indicator stocks; data within a row for each calendar year sum to 100%. Some changes are present in these distribution tables compared to those presented in previous reports due to changes in the CWT database. Data is not reported for a particular calendar year if there are less than 3 age classes present in the calendar year or if there are less than 10 estimated CWTs in the reported catch and escapement.

LIST OF APPENDIX C FIGURES.

Appendix C.1. Percent distribution of Alaska Spring (Alaska South SE) reported catch among fisheries and escapement. 98
Appendix C.2. Percent distribution of Alaska Spring (Alaska South SE) total fishing mortalities among fisheries and escapement 99
Appendix C.3. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) reported catch among fisheries and escapement. 100
Appendix C.4. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total fishing mortalities among fisheries and escapement. 101
Appendix C.5. Percent distribution of Chilliwack River Fall (Fraser Late) reported catch among fisheries and escapement. 102
Appendix C.6. Percent distribution of Chilliwack River Fall (Fraser Late) total fishing mortalities among fisheries and escapement 103
Appendix C.7. Percent distribution of Chilkat River reported catch among fisheries and escapement 104
Appendix C.8. Percent distribution of Chilkat River total fishing mortalities among fisheries and escapement 105
Appendix C.9. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement. 106
Appendix C.10. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement. 107
Appendix C.11. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) reported catch among fisheries and escapement 108
Appendix C.12. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) total fishing mortalities among fisheries and escapement. 109
Appendix C.13. Percent distribution of Dome Creek Spring (Fraser Early) reported catch among fisheries and escapement. 110
Appendix C.14. Percent distribution of Dome Creek Spring (Fraser Early) total fishing mortalities among fisheries and escapement. 111
Appendix C.15. Percent distribution of Elk River (Oregon Coast) reported catch among fisheries and escapement. 112
Appendix C.16. Percent distribution of Elk River (Oregon Coast) total fishing mortalities among fisheries and escapement. 113
Appendix C.17. Percent distribution of Elwha River reported catch among fisheries and escapement 114

Appendix C.18. Percent distribution of Elwha River total fishing mortalities among fisheries and escapement....115
Appendix C.19. Percent distribution of George Adams Fall Fingerling reported catch among fisheries and escapement....116
Appendix C.20. Percent distribution of George Adams Fall Fingerling total fishing mortalities among fisheries and escapement....117
Appendix C.21. Percent distribution of Hanford Wild Brights reported catch among fisheries and escapement....118
Appendix C.22. Percent distribution of Hanford Wild Brights total fishing mortalities among fisheries and escapement....119
Appendix C.23. Percent distribution of Hoko Fall Fingerling reported catch among fisheries and escapement....120
Appendix C.24. Percent distribution of Hoko Fall Fingerling total fishing mortalities among fisheries and escapement....121
Appendix C.25. Percent distribution of Kitsumkalum River Summer (North/Central BC) reported catch among fisheries and escapement....122
Appendix C.26. Percent distribution of Kitsumkalum River Summer (North/Central BC) total fishing mortalities among fisheries and escapement....123
Appendix C.27. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) reported catch among fisheries and escapement....124
Appendix C.28. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) total fishing mortalities among fisheries and escapement....125
Appendix C.29. Percent distribution of Lewis River Wild (Lewis River Wild) reported catch among fisheries and escapement....126
Appendix C.30. Percent distribution of Lewis River Wild (Lewis River Wild) total fishing mortalities among fisheries and escapement....127
Appendix C.31. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) reported catch among fisheries and escapement....128
Appendix C.32. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) total fishing mortalities among fisheries and escapement....129
Appendix C.33. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement....130
Appendix C.34. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement....131
Appendix C.35. Percent distribution of Nicola River Spring (Fraser Early) reported catch among fisheries and escapement....132
Appendix C.36. Percent distribution of Nicola River Spring (Fraser Early) total fishing mortalities among fisheries and escapement....133
Appendix C.37. Percent distribution of Nisqually Fall Fingerling reported catch among fisheries and escapement....134
Appendix C.38. Percent distribution of Nisqually Fall Fingerling total fishing mortalities among fisheries and escapement....135
Appendix C.39. Percent distribution of Nooksack Spring Yearling (Nooksack Spring Yearling) reported catch among fisheries and escapement....136
Appendix C.40. Percent distribution of Nooksack Spring Yearling (Nooksack Spring Yearling) total fishing mortalities among fisheries and escapement....137

Appendix C.41. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring Yearling) reported catch among fisheries and escapement. 138
Appendix C.42. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring Yearling) total fishing mortalities among fisheries and escapement. 139
Appendix C.43. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) reported catch among fisheries and escapement. 140
Appendix C.44. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) total fishing mortalities among fisheries and escapement. 141
Appendix C.45. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement. 142
Appendix C.46. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement. 143
Appendix C.47. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) reported catch among fisheries and escapement. 144
Appendix C.48. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) total fishing mortalities among fisheries and escapement. 145
Appendix C.49. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) reported catch among fisheries and escapement. 146
Appendix C.50. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) total fishing mortalities among fisheries and escapement. 147
Appendix C.51. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) reported catch among fisheries and escapement. 148
Appendix C.52. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) total fishing mortalities among fisheries and escapement. 149
Appendix C.53. Percent distribution of Lower Shuswap River Summer (Fraser Early) reported catch among fisheries and escapement. 150
Appendix C.54. Percent distribution of Lower Shuswap River Summer (Fraser Early) total fishing mortalities among fisheries and escapement. 151
Appendix C.55. Percent distribution of Skagit Spring Fingerling reported catch among fisheries and escapement. 152
Appendix C.56. Percent distribution of Skagit Spring Fingerling total fishing mortalities among fisheries and escapement. 153
Appendix C.57. Percent distribution of Skagit Spring Yearling reported catch among fisheries and escapement. 154
Appendix C.58. Percent distribution of Skagit Spring Yearling total fishing mortalities among fisheries and escapement. 155
Appendix C.59. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) reported catch among fisheries and escapement. 156
Appendix C.60. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) total fishing mortalities among fisheries and escapement. 157
Appendix C.61. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement. 158
Appendix C.62. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement. 159
Appendix C.63. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) reported catch among fisheries and escapement. 160

Appendix C.64. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) total fishing mortalities among fisheries and escapement. 161
Appendix C.65. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) reported catch among fisheries and escapement..... 162
Appendix C.66. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) total fishing mortalities among fisheries and escapement. 163
Appendix C.67. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement. 164
Appendix C.68. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement. 165
Appendix C.69. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement. 166
Appendix C.70. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement. 167
Appendix C.71. Percent distribution of Salmon River (Oregon Coast) reported catch among fisheries and escapement. 168
Appendix C.72. Percent distribution of Salmon River (Oregon Coast) total fishing mortalities among fisheries and escapement..... 169
Appendix C.73. Percent distribution of Skagit Summer Fingerling (Skagit Wild) reported catch among fisheries and escapement..... 170
Appendix C.74. Percent distribution of Skagit Summer Fingerling (Skagit Wild) total fishing mortalities among fisheries and escapement. 171
Appendix C.75. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) reported catch among fisheries and escapement..... 172
Appendix C.76. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) total fishing mortalities among fisheries and escapement..... 173
Appendix C.77. Percent distribution of Columbia River Summers (Columbia River Summer) reported catch among fisheries and escapement..... 174
Appendix C.78. Percent distribution of Columbia River Summers (Columbia River Summer) total fishing mortalities among fisheries and escapement..... 175
Appendix C.79. Percent distribution of Taku River reported catch among fisheries and escapement..... 176
Appendix C.80. Percent distribution of Taku River total fishing mortalities among fisheries and escapement..... 177
Appendix C.81. Percent distribution of Unuk River reported catch among fisheries and escapement..... 178
Appendix C.82. Percent distribution of Unuk River total fishing mortalities among fisheries and escapement..... 179
Appendix C.83. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) reported catch among fisheries and escapement. 180
Appendix C.84. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) total fishing mortalities among fisheries and escapement. 181
Appendix C.85. Percent distribution of University Of Washington Accelerated reported catch among fisheries and escapement..... 182
Appendix C.86. Percent distribution of University Of Washington Accelerated total fishing mortalities among fisheries and escapement. 183

Appendix C.87. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement. 184
Appendix C.88. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement. 185
Appendix C.89. Percent distribution of Willamette Spring (Willamette River Hatchery) reported catch among fisheries and escapement 186
Appendix C.90. Percent distribution of Willamette Spring (Willamette River Hatchery) total fishing mortalities among fisheries and escapement 187

Appendix C.1. Percent distribution of Alaska Spring (Alaska South SE) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	49	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	1544	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	824	3,4,5	40 4%	3 9%	5 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 4%	38 5%
1982	2654	3,4,5,6	20 7%	5 2%	3 4%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	65 7%
1983	5592	3,4,5,6	25 3%	1 3%	6 3%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	60 4%
1984	10319	3,4,5,6	21 5%	2 6%	12 9%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	59 7%
1985	15884	3,4,5,6	24 4%	4 7%	11 2%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	2 3%	55 1%
1986	16246	3,4,5,6	23 5%	4 5%	11 7%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	4 1%	54 5%
1987	15950	3,4,5,6	27 2%	2 6%	6 7%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 9%	54 4%
1988	15058	3,4,5,6	28 1%	1 8%	9 7%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 3%	51 6%
1989	11305	3,4,5,6	21 6%	4 8%	8 8%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	6 0%	53 0%
1990	13877	3,4,5,6	31 4%	2 4%	9 6%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	43 5%
1991	14133	3,4,5,6	35 2%	3 5%	9 7%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 9%	38 7%
1992	6908	3,4,5,6	22 9%	6 6%	10 9%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	12 2%	46 6%
1993	5948	3,4,5,6	18 5%	3 5%	11 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	9 1%	55 0%
1994	5371	3,4,5,6	13 9%	12 3%	12 0%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	4 1%	53 1%
1995	5935	3,4,5,6	24 5%	4 9%	11 2%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	8 4%	41 3%
1996	6135	3,4,5,6	22 2%	4 6%	14 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	15 1%	37 8%
1997	5506	3,4,5,6	23 7%	4 7%	13 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	18 1%	36 8%
1998	3644	3,4,5,6	24 5%	6 7%	12 6%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	15 2%	36 4%
1999	5785	3,4,5,6	18 2%	2 4%	14 2%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	14 0%	47 8%
2000	6314	3,4,5,6	20 0%	2 6%	12 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	11 8%	50 6%
2001	6754	3,4,5,6	14 7%	2 2%	9 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	8 9%	63 0%
2002	5905	3,4,5,6	10 8%	1 8%	7 3%	1 0%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	8 4%	68 0%
2003	5893	3,4,5,6	15 8%	1 7%	7 9%	0 7%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 1%	63 5%
2004	8472	3,4,5,6	15 3%	5 1%	5 3%	0 4%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	9 3%	63 7%
2005	7858	3,4,5,6	23 2%	5 6%	11 3%	0 3%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	19 8%	39 0%
2006	10278	3,4,5,6	32 3%	3 9%	5 8%	0 7%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	9 8%	45 4%
2007	9976	3,4,5,6	29 2%	3 1%	6 2%	0 2%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	9 7%	50 2%
2008	9880	3,4,5,6	18 9%	3 4%	3 8%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	14 2%	58 3%
2009	7451	3,4,5,6	14 1%	3 2%	3 7%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	8 2%	65 1%
1979-2009	8478		22 8%	4 0%	9 2%	0 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	9 6%	51 6%
1979-1984	4847		27 0%	3 2%	7 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	56 1%
1985-1995	11510		24 7%	4 7%	10 2%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	7 7%	49 7%
1996-1998	5095		23 4%	5 3%	13 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 0%	16 1%	37 0%
1999-2009	7688		19 3%	3 2%	7 9%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	11 3%	55 9%

Appendix C.2. Percent distribution of Alaska Spring (Alaska South SE) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	313	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	1852	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	1080	3,4,5	46 0%	3 4%	10 9%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 4%	29 4%
1982	3189	3,4,5,6	29 1%	5 0%	5 5%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 0%	54 7%
1983	6815	3,4,5,6	34 4%	1 2%	8 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	49 6%
1984	12593	3,4,5,6	29 7%	2 4%	15 9%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	48 9%
1985	19489	3,4,5,6	29 5%	8 8%	12 8%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	2 1%	44 9%
1986	19650	3,4,5,6	26 7%	10 5%	12 4%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	3 7%	45 0%
1987	18709	3,4,5,6	33 8%	4 5%	7 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 2%	46 4%
1988	16662	3,4,5,6	29 9%	4 2%	10 5%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	7 1%	46 6%
1989	14237	3,4,5,6	24 2%	13 8%	9 6%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	5 1%	42 0%
1990	17311	3,4,5,6	37 7%	5 4%	10 1%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	34 9%
1991	16147	3,4,5,6	37 5%	6 5%	10 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 0%	33 9%
1992	10311	3,4,5,6	19 2%	31 6%	8 8%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	8 6%	31 2%
1993	6793	3,4,5,6	22 3%	6 1%	12 3%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	8 4%	48 2%
1994	7789	3,4,5,6	15 9%	29 7%	11 1%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	3 0%	36 6%
1995	7185	3,4,5,6	28 7%	8 6%	11 6%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	7 4%	34 1%
1996	6890	3,4,5,6	24 8%	6 3%	15 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	14 1%	33 7%
1997	6119	3,4,5,6	25 6%	6 4%	14 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	17 2%	33 1%
1998	4299	3,4,5,6	25 9%	10 5%	13 9%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	14 1%	30 9%
1999	6729	3,4,5,6	21 7%	3 2%	17 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	13 3%	41 1%
2000	7202	3,4,5,6	23 4%	4 0%	13 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	11 5%	44 4%
2001	7308	3,4,5,6	17 4%	3 0%	10 3%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	8 7%	58 3%
2002	6429	3,4,5,6	13 1%	2 4%	9 1%	1 1%	0 8%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	8 5%	62 5%
2003	6346	3,4,5,6	18 0%	2 2%	9 5%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 2%	59 0%
2004	9388	3,4,5,6	17 9%	7 1%	6 7%	0 5%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	9 1%	57 5%
2005	9285	3,4,5,6	26 4%	7 4%	13 5%	0 4%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	18 5%	33 0%
2006	11776	3,4,5,6	36 5%	4 6%	6 8%	0 7%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	9 4%	39 7%
2007	11512	3,4,5,6	32 7%	5 6%	6 9%	0 2%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	9 4%	43 5%
2008	10767	3,4,5,6	22 3%	4 0%	4 7%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	13 9%	53 5%
2009	8309	3,4,5,6	17 6%	4 5%	4 5%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 9%	8 1%	58 4%
1979-2009	10011		26 5%	7 3%	10 4%	0 6%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	8 9%	44 0%
1979-1984	5919		34 8%	3 0%	10 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	45 6%
1985-1995	14026		27 7%	11 8%	10 6%	0 7%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	6 7%	40 3%
1996-1998	5769		25 4%	7 7%	14 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	15 1%	32 6%
1999-2009	8641		22 5%	4 4%	9 3%	0 4%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	11 0%	50 1%

Appendix C.3. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	4744	2,3,4,5	3 4%	0 9%	0 3%	1 7%	0 4%	2 2%	0 1%	21 2%	15 3%	9 4%	12 1%	0 0%	0 0%	0 0%	0 1%	0 3%	0 0%	0 0%	0 0%	2 8%	29 9%
1980	2734	2,3,4,5	1 4%	1 6%	0 4%	4 3%	1 4%	4 2%	0 0%	15 3%	20 1%	6 6%	12 8%	0 0%	0 1%	0 0%	0 0%	0 3%	0 2%	0 0%	0 0%	3 7%	27 7%
1981	1425	2,3,4,5	1 9%	0 3%	0 4%	1 3%	0 8%	1 5%	0 3%	17 8%	33 4%	11 4%	14 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 6%	0 0%	0 0%	4 1%	12 1%
1982	740	2,3,4,5	4 5%	0 4%	1 2%	4 5%	0 4%	4 3%	0 0%	12 7%	11 4%	5 8%	20 5%	0 0%	0 0%	0 0%	0 0%	1 1%	0 7%	0 0%	0 0%	1 6%	30 9%
1983	629	2,3,4,5	5 4%	0 3%	0 3%	4 9%	1 0%	1 1%	0 0%	13 5%	14 8%	6 8%	19 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	8 3%	23 7%
1984	497	2,3,4,5	1 4%	0 4%	0 0%	1 4%	5 8%	1 4%	0 0%	8 9%	38 8%	6 6%	9 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	20 7%
1985	690	2,3,4,5	3 9%	0 3%	0 0%	1 7%	1 7%	1 4%	0 0%	1 7%	24 3%	3 8%	19 3%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	0 0%	9 7%	29 4%
1986	1205	2,3,4,5	1 9%	0 2%	0 0%	0 7%	2 8%	1 4%	0 0%	8 1%	30 8%	12 6%	15 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	20 1%
1987	738	2,3,4,5	8 7%	0 0%	0 9%	3 9%	2 7%	4 2%	0 0%	2 0%	22 6%	2 4%	7 7%	0 0%	0 8%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	6 6%	36 6%
1988	395	2,3,4,5	2 8%	0 5%	0 0%	2 3%	1 3%	2 8%	2 0%	1 8%	25 3%	1 3%	14 9%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	5 1%	39 0%
1989	501	2,3,4,5	4 2%	1 6%	0 6%	3 2%	1 8%	4 8%	0 0%	1 8%	19 4%	0 6%	9 2%	0 0%	0 2%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	18 0%	33 7%
1990	632	2,3,4,5	4 7%	1 9%	0 0%	6 0%	2 4%	3 0%	0 0%	3 5%	14 6%	1 6%	17 9%	0 0%	0 2%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	4 6%	37 8%
1991	624	2,3,4,5	2 4%	1 3%	0 0%	2 1%	1 9%	1 9%	0 0%	5 3%	28 2%	1 1%	8 5%	0 0%	0 5%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	10 9%	35 4%
1992	558	2,3,4,5	2 3%	0 0%	2 5%	5 4%	7 7%	3 4%	0 0%	9 0%	26 3%	5 9%	5 6%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	5 9%	25 6%
1993	409	2,3,4,5	1 2%	1 2%	0 0%	1 5%	3 2%	1 7%	0 0%	3 4%	36 9%	3 9%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	4 6%	31 5%
1994	252	2,3,4,5	4 4%	0 0%	0 0%	1 6%	2 0%	2 8%	0 0%	4 4%	23 4%	1 6%	6 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	6 0%	45 2%
1995	201	2,3,4,5	7 0%	0 0%	0 0%	1 5%	2 5%	0 0%	0 0%	0 0%	10 9%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 0%	60 7%
1996	279	2,3,4,5	2 9%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	44 1%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	2 2%	48 0%
1997	207	2,3,4,5	2 9%	0 0%	0 0%	4 8%	1 9%	0 0%	7 2%	1 0%	8 7%	1 4%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 8%	50 2%
1998	184	2,3,4,5	7 1%	0 5%	0 0%	0 0%	5 4%	0 0%	0 0%	0 0%	10 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 7%	67 4%
1999	263	2,3,4,5	5 3%	2 3%	0 0%	3 4%	3 8%	0 0%	3 4%	0 0%	8 7%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	2 3%	66 5%
2000	222	2,3,4,5	14 0%	0 9%	0 0%	0 0%	2 3%	0 0%	0 0%	0 0%	7 7%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	3 2%	0 0%	0 0%	0 0%	3 6%	68 0%
2001	462	2,3,4,5	4 1%	6 9%	0 0%	0 0%	9 5%	0 6%	0 0%	0 0%	8 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	2 2%	66 5%
2002	295	2,3,4,5	10 2%	0 0%	3 1%	3 4%	5 8%	2 4%	3 1%	0 0%	5 8%	0 0%	0 3%	0 0%	0 0%	0 0%	1 0%	2 0%	0 0%	0 0%	0 0%	3 4%	59 7%
2003	244	2,3,4,5	7 8%	0 4%	1 6%	0 0%	11 9%	3 3%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	66 4%
2004	363	2,3,4,5	7 2%	0 0%	0 3%	5 0%	2 8%	1 7%	0 0%	0 0%	5 8%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 6%	74 9%
2005	517	2,3,4,5	8 7%	0 4%	0 0%	1 9%	12 0%	5 2%	2 7%	0 0%	5 8%	0 0%	0 8%	0 0%	0 6%	0 0%	0 6%	2 9%	0 0%	0 0%	0 0%	1 4%	57 1%
2006	583	2,3,4,5	4 1%	1 2%	1 9%	1 4%	4 3%	0 5%	0 0%	0 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 0%	3 3%	79 2%
2007	559	2,3,4,5	10 7%	0 2%	0 7%	5 0%	7 3%	0 7%	2 1%	0 0%	5 2%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	4 8%	61 7%
2008	377	2,3,4,5	4 2%	0 8%	0 3%	1 6%	6 9%	0 8%	6 6%	0 0%	6 4%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	1 6%	1 9%	0 0%	0 0%	2 1%	66 3%
2009	499	2,3,4,5	3 6%	3 8%	0 0%	1 8%	3 2%	1 6%	4 6%	0 0%	7 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	1 0%	0 6%	0 0%	0 0%	2 4%	69 7%
1979-2009	711		5 0%	0 9%	0 5%	2 5%	3 8%	1 9%	1 0%	4 2%	17 2%	2 8%	7 0%	0 0%	0 1%	0 0%	0 1%	0 8%	0 3%	0 0%	0 0%	5 4%	46 5%
1979-1984	1795		3 0%	0 7%	0 4%	3 0%	1 6%	2 5%	0 1%	14 9%	22 3%	7 8%	14 8%	0 0%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	4 2%	24 2%
1985-1995	564		4 0%	0 6%	0 4%	2 7%	2 7%	2 5%	0 2%	3 7%	23 9%	3 2%	11 1%	0 0%	0 2%	0 0%	0 0%	0 7%	0 4%	0 0%	0 0%	7 9%	35 9%
1996-1998	223		4 3%	0 2%	0 0%	1 6%	2 8%	0 0%	2 4%	0 3%	21 2%	0 5%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	10 2%	55 2%
1999-2009	399		7 3%	1 5%	0 7%	2 1%	6 3%	1 5%	2 1%	0 0%	6 6%	0 3%	0 2%	0 0%	0 2%	0 0%	0 2%	1 4%	0 2%	0 0%	0 0%	2 4%	66 9%

Appendix C.4. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	5214	2,3,4,5	4 3%	0 9%	0 4%	2 2%	0 4%	2 8%	0 1%	20 4%	14 9%	11 8%	11 7%	0 0%	0 0%	0 0%	0 1%	0 3%	0 0%	0 0%	0 0%	2 7%	27 2%
1980	2953	2,3,4,5	1 4%	1 7%	0 4%	4 9%	1 3%	5 0%	0 0%	15 0%	19 9%	7 6%	12 8%	0 0%	0 2%	0 0%	0 0%	0 3%	0 2%	0 0%	0 0%	3 6%	25 6%
1981	1567	2,3,4,5	2 0%	0 3%	0 4%	1 6%	0 8%	1 8%	0 3%	17 2%	32 7%	13 3%	13 8%	0 0%	0 0%	0 0%	0 0%	0 2%	0 6%	0 0%	0 0%	4 0%	11 0%
1982	796	2,3,4,5	5 3%	0 5%	1 4%	4 9%	0 4%	4 9%	0 0%	12 4%	11 3%	6 4%	20 2%	0 0%	0 0%	0 0%	0 0%	1 1%	0 8%	0 0%	0 0%	1 6%	28 8%
1983	694	2,3,4,5	5 5%	0 3%	0 7%	5 0%	1 2%	1 2%	0 0%	14 7%	14 6%	7 2%	18 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	8 4%	21 5%
1984	550	2,3,4,5	2 0%	0 4%	0 0%	1 5%	6 5%	1 6%	0 0%	9 3%	37 8%	7 3%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	18 7%
1985	797	2,3,4,5	6 4%	1 0%	0 0%	2 1%	2 1%	1 6%	0 0%	2 3%	23 0%	4 4%	18 8%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	0 0%	0 0%	9 5%	25 5%
1986	1350	2,3,4,5	2 7%	1 3%	0 0%	0 8%	2 8%	1 4%	0 0%	9 9%	29 5%	13 5%	14 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	17 9%
1987	793	2,3,4,5	9 6%	0 0%	1 0%	4 3%	2 9%	4 8%	0 0%	2 1%	22 6%	2 8%	7 6%	0 0%	0 9%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	6 7%	34 0%
1988	458	2,3,4,5	2 6%	1 3%	0 0%	2 6%	1 3%	3 3%	2 0%	2 0%	29 0%	1 3%	14 4%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	5 0%	33 6%
1989	604	2,3,4,5	4 3%	5 1%	0 8%	3 6%	1 8%	5 1%	0 0%	2 0%	20 9%	0 5%	8 1%	0 0%	0 3%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	18 2%	28 0%
1990	741	2,3,4,5	5 3%	3 8%	0 0%	7 0%	2 6%	3 2%	0 0%	3 9%	15 8%	1 8%	17 0%	0 0%	0 1%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	4 6%	32 3%
1991	741	2,3,4,5	3 0%	2 7%	0 0%	2 4%	1 9%	2 2%	0 0%	6 3%	30 5%	1 3%	7 7%	0 0%	0 5%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	11 2%	29 8%
1992	676	2,3,4,5	3 7%	0 0%	2 7%	6 1%	7 5%	3 6%	0 0%	10 9%	27 2%	6 2%	4 9%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	5 6%	21 2%
1993	492	2,3,4,5	1 6%	2 4%	0 0%	1 6%	3 0%	1 8%	0 0%	4 5%	39 4%	4 7%	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	4 7%	26 2%
1994	277	2,3,4,5	5 1%	0 0%	0 0%	1 8%	1 8%	2 9%	0 0%	5 1%	25 6%	1 8%	5 4%	0 0%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	0 0%	6 5%	41 2%
1995	232	2,3,4,5	7 8%	0 0%	0 0%	2 2%	3 4%	0 0%	0 0%	0 0%	12 1%	0 0%	11 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 3%	52 6%
1996	329	2,3,4,5	3 3%	0 0%	0 0%	0 6%	0 9%	0 3%	0 0%	0 0%	49 2%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	2 4%	40 7%
1997	235	2,3,4,5	3 4%	0 0%	0 0%	5 5%	2 6%	0 0%	6 8%	0 9%	9 4%	1 7%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 9%	44 3%
1998	199	2,3,4,5	7 5%	0 5%	0 0%	0 0%	7 0%	0 0%	0 0%	0 0%	12 6%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 5%	62 3%
1999	289	2,3,4,5	6 2%	3 8%	0 0%	3 8%	4 8%	0 0%	3 8%	0 0%	10 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	2 4%	60 6%
2000	242	2,3,4,5	16 5%	1 2%	0 0%	0 0%	2 9%	0 0%	0 0%	0 0%	8 7%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	3 7%	0 0%	0 0%	0 0%	4 1%	62 4%
2001	523	2,3,4,5	4 8%	11 3%	0 0%	0 0%	11 5%	0 6%	0 0%	0 0%	9 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	0 0%	2 3%	58 7%
2002	337	2,3,4,5	11 3%	0 0%	3 3%	3 6%	6 5%	2 1%	3 3%	0 0%	6 2%	0 0%	5 0%	0 0%	0 0%	0 0%	0 9%	2 1%	0 0%	0 0%	0 0%	3 6%	52 2%
2003	271	2,3,4,5	8 9%	0 7%	2 2%	0 0%	15 1%	3 3%	0 0%	0 0%	10 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%
2004	387	2,3,4,5	8 5%	0 0%	0 3%	5 9%	3 9%	1 6%	0 0%	0 0%	7 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 5%	70 3%
2005	585	2,3,4,5	10 1%	0 5%	0 0%	2 1%	15 2%	5 3%	2 9%	0 0%	6 3%	0 0%	1 0%	0 0%	0 5%	0 0%	0 7%	3 6%	0 0%	0 0%	0 0%	1 4%	50 4%
2006	621	2,3,4,5	5 3%	2 4%	2 3%	1 6%	4 8%	0 6%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 0%	3 7%	74 4%
2007	613	2,3,4,5	12 7%	0 2%	1 0%	5 4%	9 0%	0 7%	2 3%	0 0%	5 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	4 9%	56 3%
2008	418	2,3,4,5	5 7%	1 0%	0 5%	1 9%	7 9%	1 0%	7 2%	0 0%	7 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	2 2%	2 9%	0 0%	0 0%	2 4%	59 8%
2009	538	2,3,4,5	4 6%	4 8%	0 0%	2 0%	3 9%	1 5%	5 0%	0 0%	8 2%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 9%	1 1%	0 0%	0 0%	2 6%	64 7%
1979-2009	791		5 9%	1 6%	0 6%	2 8%	4 4%	2 1%	1 1%	4 5%	18 1%	3 1%	7 1%	0 0%	0 1%	0 0%	0 1%	0 9%	0 4%	0 0%	0 0%	5 6%	41 7%
1979-1984	1962		3 4%	0 7%	0 6%	3 3%	1 8%	2 9%	0 1%	14 8%	21 9%	8 9%	14 5%	0 0%	0 0%	0 0%	0 0%	0 3%	0 4%	0 0%	0 0%	4 2%	22 1%
1985-1995	651		4 7%	1 6%	0 4%	3 1%	2 8%	2 7%	0 2%	4 4%	25 1%	3 5%	10 8%	0 0%	0 2%	0 0%	0 0%	0 8%	0 5%	0 0%	0 0%	8 0%	31 1%
1996-1998	254		4 8%	0 2%	0 0%	2 0%	3 5%	0 1%	2 3%	0 3%	23 7%	0 6%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	10 9%	49 1%
1999-2009	439		8 6%	2 4%	0 9%	2 4%	7 8%	1 5%	2 2%	0 0%	7 5%	0 3%	0 7%	0 0%	0 1%	0 0%	0 2%	1 6%	0 4%	0 0%	0 0%	2 5%	60 9%

Appendix C.5. Percent distribution of Chilliwack River Fall (Fraser Late) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	2728	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	4861	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	2226	2,3,4	0 5%	0 0%	0 0%	0 3%	0 2%	33 7%	0 0%	5 5%	23 0%	2 3%	7 8%	0 0%	3 8%	0 0%	0 4%	4 7%	3 8%	0 0%	0 0%	0 9%	13 2%
1986	1816	2,3,4,5	0 0%	0 0%	0 0%	0 8%	0 2%	19 5%	0 0%	7 8%	19 3%	2 5%	14 1%	0 0%	2 6%	0 0%	0 2%	4 0%	5 6%	0 0%	0 0%	1 1%	22 2%
1987	2366	2,3,4,5	0 0%	0 0%	0 0%	0 7%	0 3%	16 2%	0 5%	14 6%	19 5%	0 4%	2 6%	0 0%	3 8%	0 0%	0 2%	3 8%	2 5%	0 0%	0 0%	1 3%	33 5%
1988	2167	2,3,4,5	0 4%	0 1%	0 0%	0 2%	0 0%	17 9%	0 0%	6 6%	10 6%	0 0%	2 4%	0 0%	4 2%	0 0%	0 1%	3 0%	1 7%	0 0%	0 0%	2 6%	50 3%
1989	1036	2,3,4,5	0 3%	0 0%	0 0%	0 0%	0 0%	19 5%	0 0%	1 4%	15 3%	0 0%	4 2%	0 0%	5 3%	0 0%	0 2%	3 8%	1 2%	0 0%	0 0%	0 7%	48 3%
1990	1291	2,3,4,5	0 9%	0 0%	0 0%	0 0%	0 3%	9 5%	2 4%	3 6%	10 5%	0 2%	5 7%	0 0%	6 2%	0 0%	0 5%	12 1%	5 0%	0 0%	0 0%	1 2%	42 0%
1991	2472	2,3,4,5	0 2%	0 1%	0 0%	0 4%	0 2%	18 3%	0 7%	7 8%	12 4%	0 2%	5 1%	0 0%	13 4%	0 0%	0 1%	5 3%	4 5%	0 0%	0 0%	1 7%	29 5%
1992	3710	2,3,4,5	0 3%	0 0%	0 0%	0 1%	0 2%	18 1%	0 1%	5 3%	9 6%	0 6%	1 3%	0 0%	8 2%	0 0%	0 1%	0 9%	3 2%	0 0%	0 0%	1 2%	50 7%
1993	1845	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 4%	11 8%	0 4%	6 6%	6 6%	0 0%	1 5%	0 0%	7 1%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	1 6%	63 0%
1994	615	2,3,4,5	0 3%	0 2%	0 0%	0 7%	0 0%	6 8%	2 4%	2 8%	5 2%	0 3%	6 0%	0 0%	1 6%	0 0%	0 0%	3 7%	3 6%	0 0%	0 0%	5 5%	60 8%
1995	1979	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 2%	8 7%	0 5%	0 0%	5 4%	0 0%	2 0%	0 0%	1 2%	0 0%	0 0%	1 1%	1 7%	0 0%	0 0%	1 1%	78 3%
1996	1477	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	13 3%	0 0%	2 2%	0 0%	4 5%	0 0%	0 0%	0 9%	2 7%	0 0%	0 0%	2 4%	73 4%
1997	2164	2,3,4,5	0 6%	0 0%	0 0%	0 1%	0 5%	9 9%	2 8%	0 0%	11 8%	0 5%	2 7%	0 0%	4 9%	0 0%	0 1%	2 3%	3 2%	0 0%	0 0%	3 0%	57 6%
1998	3110	2,3,4,5	0 4%	0 0%	0 0%	0 0%	0 2%	0 2%	0 3%	0 0%	2 7%	0 0%	0 5%	0 0%	3 0%	0 0%	0 0%	0 3%	0 4%	0 0%	0 0%	1 2%	90 8%
1999	3173	2,3,4,5	0 1%	0 0%	0 0%	0 2%	0 1%	0 3%	1 9%	0 0%	8 7%	0 0%	0 4%	0 0%	11 6%	0 0%	0 5%	0 7%	0 4%	0 0%	0 0%	1 6%	73 6%
2000	2572	2,3,4,5	0 1%	0 0%	0 0%	0 0%	0 3%	5 4%	2 4%	0 0%	3 3%	0 0%	0 0%	0 0%	3 8%	0 0%	0 0%	0 5%	0 4%	0 0%	0 0%	2 4%	81 3%
2001	3734	2,3,4,5	0 1%	0 1%	0 0%	0 0%	0 2%	3 6%	1 4%	0 0%	5 6%	0 0%	0 5%	0 0%	5 7%	0 0%	0 3%	0 9%	2 2%	0 0%	0 0%	11 1%	68 3%
2002	4843	2,3,4,5	0 2%	0 0%	0 0%	0 1%	0 2%	8 4%	4 5%	0 0%	3 0%	0 0%	0 6%	0 0%	7 0%	0 0%	1 1%	0 3%	1 3%	0 0%	0 0%	4 8%	68 6%
2003	4481	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 2%	5 7%	2 3%	0 0%	2 5%	0 0%	0 3%	0 0%	7 5%	0 0%	0 4%	0 3%	0 8%	0 0%	0 0%	6 2%	73 6%
2004	6578	2,3,4,5	0 1%	0 0%	0 0%	0 1%	0 0%	5 0%	2 1%	0 0%	0 7%	0 0%	0 7%	0 0%	6 0%	0 0%	0 2%	0 1%	0 7%	0 0%	0 0%	4 6%	79 8%
2005	3909	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 2%	7 4%	3 8%	0 0%	3 0%	0 0%	3 4%	0 0%	3 4%	0 0%	0 8%	0 8%	0 5%	0 0%	0 0%	5 8%	70 8%
2006	2918	2,3,4,5	0 0%	0 0%	0 0%	0 4%	0 0%	7 2%	1 9%	0 0%	2 0%	0 0%	0 6%	0 0%	2 3%	0 0%	0 3%	0 2%	1 1%	0 0%	0 0%	4 3%	79 9%
2007	1671	2,3,4,5	0 0%	0 0%	0 0%	0 2%	0 0%	7 4%	2 7%	0 0%	0 8%	0 0%	2 8%	0 0%	2 2%	0 0%	0 1%	0 4%	0 5%	0 0%	0 2%	5 7%	77 0%
2008	2675	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	10 5%	4 3%	0 0%	1 5%	0 0%	0 9%	0 0%	3 7%	0 0%	1 5%	0 7%	1 3%	0 0%	0 0%	9 7%	65 6%
2009	2677	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	2 8%	0 0%	2 1%	0 0%	2 4%	0 0%	0 6%	0 0%	0 3%	0 9%	1 3%	0 0%	0 0%	12 9%	75 2%
1979-2009	2700		0 2%	0 0%	0 0%	0 2%	0 1%	10 1%	1 6%	2 5%	7 9%	0 3%	2 8%	0 0%	4 9%	0 0%	0 3%	2 1%	2 0%	0 0%	0 0%	3 8%	61 1%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	1957		0 3%	0 0%	0 0%	0 3%	0 2%	16 4%	0 6%	5 6%	12 5%	0 6%	4 8%	0 0%	5 2%	0 0%	0 2%	3 9%	3 1%	0 0%	0 0%	1 7%	44 7%
1996-1998	2250		0 4%	0 0%	0 0%	0 0%	0 2%	3 4%	1 1%	0 0%	9 3%	0 2%	1 8%	0 0%	4 1%	0 0%	0 0%	1 2%	2 1%	0 0%	0 0%	2 2%	73 9%
1999-2009	3566		0 1%	0 0%	0 0%	0 1%	0 1%	5 7%	2 7%	0 0%	3 0%	0 0%	1 2%	0 0%	4 9%	0 0%	0 5%	0 5%	1 0%	0 0%	0 0%	6 3%	74 0%

Appendix C.6. Percent distribution of Chilliwack River Fall (Fraser Late) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	3672	2	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	5326	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	2571	2,3,4	1.0%	0.1%	0.0%	0.4%	0.2%	33.5%	0.0%	6.5%	21.4%	2.3%	7.2%	0.0%	3.8%	0.0%	0.4%	5.8%	5.2%	0.0%	0.0%	0.8%	11.4%
1986	2130	2,3,4,5	0.0%	0.0%	0.0%	0.8%	0.2%	20.5%	0.0%	9.5%	17.8%	2.6%	13.1%	0.0%	2.8%	0.0%	0.2%	5.0%	7.6%	0.0%	0.0%	1.0%	18.9%
1987	2651	2,3,4,5	0.0%	0.0%	0.0%	0.8%	0.3%	19.0%	0.5%	16.0%	18.6%	0.5%	2.3%	0.0%	4.0%	0.0%	0.2%	3.9%	2.7%	0.0%	0.0%	1.2%	29.9%
1988	2333	2,3,4,5	0.4%	0.1%	0.0%	0.2%	0.0%	18.6%	0.0%	6.6%	11.1%	0.0%	2.3%	0.0%	4.3%	0.0%	0.1%	4.1%	2.8%	0.0%	0.0%	2.6%	46.7%
1989	1260	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	24.0%	0.0%	1.8%	18.4%	0.0%	3.7%	0.0%	6.0%	0.0%	0.2%	3.8%	1.3%	0.0%	0.0%	0.6%	39.7%
1990	1667	2,3,4,5	1.0%	0.0%	0.0%	0.0%	0.4%	11.3%	2.2%	3.7%	11.2%	0.1%	5.0%	0.0%	6.5%	0.0%	0.5%	16.7%	7.9%	0.0%	0.0%	1.0%	32.5%
1991	3006	2,3,4,5	0.2%	0.1%	0.0%	0.4%	0.2%	20.0%	0.7%	9.3%	13.3%	0.2%	4.5%	0.0%	13.8%	0.0%	0.1%	6.0%	5.2%	0.0%	0.0%	1.6%	24.3%
1992	4131	2,3,4,5	0.3%	0.0%	0.0%	0.1%	0.2%	20.3%	0.1%	6.7%	10.4%	0.7%	1.2%	0.0%	8.7%	0.0%	0.1%	0.9%	3.5%	0.0%	0.0%	1.2%	45.6%
1993	1983	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.4%	13.3%	0.4%	8.2%	7.3%	0.0%	1.4%	0.0%	7.6%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	1.6%	58.6%
1994	712	2,3,4,5	0.4%	0.3%	0.0%	0.8%	0.0%	8.4%	2.7%	3.4%	6.2%	0.4%	6.6%	0.0%	1.5%	0.0%	0.0%	5.5%	6.0%	0.0%	0.0%	5.2%	52.5%
1995	2168	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.2%	13.0%	0.5%	0.0%	6.4%	0.0%	2.4%	0.0%	1.1%	0.0%	0.0%	1.4%	2.4%	0.0%	0.0%	1.1%	71.5%
1996	1635	2,3,4,5	0.2%	0.0%	0.0%	0.1%	0.0%	2.1%	0.4%	0.0%	15.8%	0.0%	2.6%	0.0%	4.3%	0.0%	0.0%	1.2%	4.6%	0.0%	0.0%	2.4%	66.3%
1997	2421	2,3,4,5	0.8%	0.0%	0.0%	0.2%	0.5%	12.4%	2.7%	0.0%	13.6%	0.5%	3.0%	0.0%	5.4%	0.0%	0.1%	2.5%	4.0%	0.0%	0.0%	2.9%	51.5%
1998	3176	2,3,4,5	0.5%	0.0%	0.0%	0.0%	0.3%	0.2%	0.3%	0.0%	3.3%	0.0%	0.6%	0.0%	3.5%	0.0%	0.0%	0.3%	0.9%	0.0%	0.0%	1.3%	88.9%
1999	3365	2,3,4,5	0.1%	0.0%	0.0%	0.2%	0.1%	0.3%	1.9%	0.0%	10.6%	0.0%	0.4%	0.0%	13.6%	0.0%	0.5%	0.7%	0.6%	0.0%	0.0%	1.6%	69.4%
2000	2684	2,3,4,5	0.1%	0.0%	0.0%	0.0%	0.5%	5.9%	2.8%	0.0%	3.9%	0.0%	0.0%	0.0%	4.4%	0.0%	0.1%	0.7%	1.0%	0.0%	0.0%	2.5%	77.9%
2001	4056	2,3,4,5	0.1%	0.1%	0.0%	0.0%	0.2%	3.7%	1.6%	0.0%	6.8%	0.0%	0.5%	0.0%	6.5%	0.0%	0.4%	1.1%	4.9%	0.0%	0.0%	11.2%	62.9%
2002	5128	2,3,4,5	0.3%	0.0%	0.0%	0.1%	0.3%	8.6%	5.1%	0.0%	3.6%	0.0%	0.7%	0.0%	8.1%	0.0%	1.2%	0.4%	2.0%	0.0%	0.0%	4.9%	64.8%
2003	4664	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.2%	5.9%	2.8%	0.0%	2.9%	0.0%	0.3%	0.0%	8.5%	0.0%	0.5%	0.3%	1.3%	0.0%	0.0%	6.4%	70.7%
2004	6781	2,3,4,5	0.2%	0.0%	0.0%	0.2%	0.0%	5.2%	2.4%	0.0%	0.8%	0.0%	0.7%	0.0%	6.8%	0.0%	0.2%	0.1%	1.1%	0.0%	0.0%	4.8%	77.6%
2005	4043	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.2%	7.5%	4.2%	0.0%	3.5%	0.0%	3.5%	0.0%	3.8%	0.0%	0.9%	0.9%	1.0%	0.0%	0.0%	6.0%	68.4%
2006	3008	2,3,4,5	0.0%	0.0%	0.0%	0.5%	0.0%	7.4%	2.2%	0.0%	2.3%	0.0%	0.6%	0.0%	2.8%	0.0%	0.3%	0.3%	1.7%	0.0%	0.0%	4.5%	77.5%
2007	1765	2,3,4,5	0.0%	0.0%	0.0%	0.3%	0.0%	8.5%	3.2%	0.0%	1.1%	0.0%	3.0%	0.0%	2.5%	0.0%	0.1%	0.7%	1.6%	0.0%	0.2%	5.9%	72.9%
2008	2785	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	10.4%	4.7%	0.0%	1.9%	0.0%	0.9%	0.0%	4.6%	0.0%	1.6%	0.9%	1.7%	0.0%	0.0%	10.0%	63.0%
2009	2922	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	3.3%	0.0%	2.6%	0.0%	2.6%	0.0%	0.7%	0.0%	0.3%	1.3%	5.4%	0.0%	0.0%	13.2%	68.9%
1979-2009	2921		0.3%	0.0%	0.0%	0.2%	0.2%	11.3%	1.8%	2.9%	8.6%	0.3%	2.8%	0.0%	5.4%	0.0%	0.3%	2.6%	3.1%	0.0%	0.0%	3.8%	56.5%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2237		0.4%	0.1%	0.0%	0.3%	0.2%	18.4%	0.6%	6.5%	12.9%	0.6%	4.5%	0.0%	5.5%	0.0%	0.2%	4.8%	4.2%	0.0%	0.0%	1.6%	39.2%
1996-1998	2411		0.5%	0.0%	0.0%	0.1%	0.3%	4.9%	1.1%	0.0%	10.9%	0.2%	2.0%	0.0%	4.4%	0.0%	0.0%	1.3%	3.1%	0.0%	0.0%	2.2%	68.9%
1999-2009	3744		0.1%	0.0%	0.0%	0.1%	0.1%	5.9%	3.1%	0.0%	3.6%	0.0%	1.2%	0.0%	5.7%	0.0%	0.6%	0.7%	2.0%	0.0%	0.0%	6.5%	70.4%

Appendix C.7. Percent distribution of Chilkat River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	37	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	196	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	349	3,4,5	6 6%	10 0%	8 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 4%
2005	346	3,4,5,6	6 6%	6 1%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	85 3%
2006	179	3,4,5,6	5 0%	2 2%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 5%
2007	154	3,4,5,6	7 1%	8 4%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	79 2%
2008	257	3,4,5,6	7 8%	7 8%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 3%
2009	331	4,5,6	5 4%	1 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 4%
1979-2009	269		6 4%	6 1%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 3%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	269		6 4%	6 1%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 3%

Appendix C.8. Percent distribution of Chilkat River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	49	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	218	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	367	3,4,5	7.4%	12.5%	8.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.7%
2005	358	3,4,5,6	7.3%	8.1%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.4%
2006	184	3,4,5,6	6.0%	3.3%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.0%
2007	176	3,4,5,6	8.5%	15.9%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	69.3%
2008	266	3,4,5,6	8.6%	9.8%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.5%
2009	332	4,5,6	5.4%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.2%
1979-2009	280		7.2%	8.6%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.7%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1999-2009	280		7.2%	8.6%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.7%

Appendix C.9. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	73	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	261	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	343	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1072	2,3,5	0.0%	0.0%	0.0%	0.0%	0.3%	1.3%	0.0%	18.8%	32.4%	1.4%	17.6%	0.0%	0.7%	0.0%	0.3%	3.1%	2.0%	0.0%	0.7%	1.8%	19.8%
1991	2860	2,3,4	0.1%	0.0%	0.0%	0.2%	1.5%	3.4%	0.8%	7.3%	52.4%	0.2%	5.6%	0.0%	0.9%	0.0%	0.0%	3.7%	0.9%	0.0%	0.5%	0.8%	21.6%
1992	3227	2,3,4,5	0.1%	0.0%	0.0%	0.4%	0.9%	9.6%	1.4%	17.2%	45.1%	1.1%	5.4%	0.0%	0.3%	0.0%	0.0%	1.4%	1.3%	0.0%	0.9%	0.5%	14.6%
1993	3306	2,3,4,5	0.2%	0.0%	0.0%	0.1%	1.5%	7.8%	1.6%	10.1%	48.7%	0.5%	4.0%	0.0%	0.6%	0.0%	0.0%	0.9%	0.5%	0.0%	1.3%	0.7%	21.6%
1994	1024	2,3,4,5	0.6%	0.0%	0.0%	0.4%	0.0%	4.1%	0.9%	4.6%	31.0%	0.2%	8.6%	0.0%	0.4%	0.0%	0.0%	3.7%	0.5%	0.0%	4.4%	2.3%	38.4%
1995	1355	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	4.1%	0.7%	0.0%	30.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	2.2%	0.7%	0.0%	1.8%	3.9%	54.5%
1996	1023	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	39.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.9%	3.5%	0.0%	5.8%	2.2%	45.7%
1997	787	2,3,4,5	0.8%	0.0%	0.0%	0.0%	0.5%	2.3%	1.1%	0.0%	18.8%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	3.0%	2.4%	0.0%	0.4%	2.2%	68.0%
1998	398	2,3,4,5	3.8%	0.0%	0.0%	0.0%	0.8%	0.5%	1.8%	0.0%	19.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	9.5%	7.3%	53.8%
1999	419	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	4.1%	0.0%	32.9%	0.0%	0.0%	0.0%	1.0%	0.0%	0.7%	6.7%	0.0%	0.0%	2.9%	6.0%	44.6%
2000	694	2,3,4,5	1.2%	0.1%	0.0%	0.0%	0.0%	1.3%	4.8%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	1.3%	0.0%	0.6%	6.2%	67.9%
2001	619	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.2%	10.7%	0.0%	0.0%	24.1%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	11.6%	1.0%	0.0%	8.1%	2.3%	41.7%
2002	635	2,3,4,5	1.3%	0.0%	0.0%	0.0%	2.2%	4.4%	3.0%	0.0%	18.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	3.8%	4.1%	0.0%	14.2%	13.7%	34.8%
2003	314	2,3,4,5	2.2%	0.3%	0.0%	2.5%	2.9%	10.2%	2.9%	0.0%	26.4%	3.5%	0.0%	0.0%	0.6%	0.0%	0.0%	6.7%	2.5%	0.0%	5.4%	3.8%	29.9%
2004	322	2,3,4,5	0.0%	0.3%	0.0%	0.9%	4.0%	17.4%	11.8%	0.0%	18.9%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	6.2%	1.9%	0.0%	4.3%	3.1%	28.6%
2005	290	2,3,4,5	0.0%	0.3%	0.0%	1.4%	4.8%	25.5%	2.1%	0.0%	7.6%	0.0%	1.0%	0.0%	0.3%	0.0%	1.0%	15.2%	1.0%	0.0%	8.6%	0.0%	31.0%
2006	258	3,4,5	1.2%	0.0%	0.0%	0.8%	0.0%	22.9%	11.2%	0.0%	13.6%	0.0%	0.0%	0.0%	2.3%	0.0%	0.8%	5.0%	4.7%	0.0%	7.4%	0.0%	30.2%
2007	220	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	1.4%	0.0%	4.1%	0.0%	0.9%	0.0%	0.0%	0.0%	0.5%	6.8%	0.0%	0.0%	6.8%	0.0%	71.4%
2008	209	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	12.9%	0.0%	22.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	5.3%	0.0%	0.0%	7.2%	0.0%	36.8%
2009	358	2,3,4	0.0%	0.0%	0.8%	0.0%	0.0%	6.4%	10.9%	0.0%	33.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	4.7%	3.6%	0.0%	8.9%	0.0%	31.0%
1979-2009	970		0.6%	0.1%	0.0%	0.3%	1.0%	7.7%	3.7%	2.9%	26.5%	0.3%	2.3%	0.0%	0.6%	0.0%	0.2%	4.9%	1.6%	0.0%	5.0%	2.8%	39.3%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	2141		0.2%	0.0%	0.0%	0.2%	0.7%	5.0%	0.9%	9.7%	39.9%	0.6%	7.2%	0.0%	0.5%	0.0%	0.0%	2.5%	1.0%	0.0%	1.6%	1.7%	28.4%
1996-1998	736		1.6%	0.0%	0.0%	0.0%	0.4%	0.9%	1.3%	0.0%	26.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	2.3%	2.0%	0.0%	5.2%	3.9%	55.8%
1999-2009	394		0.6%	0.1%	0.1%	0.5%	1.4%	11.0%	5.9%	0.0%	19.4%	0.3%	0.2%	0.0%	0.9%	0.0%	0.3%	6.9%	1.8%	0.0%	6.8%	3.2%	40.7%

Appendix C.10. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	107	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	287	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	491	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1545	2,3,5	0 0%	0 0%	0 0%	0 1%	0 6%	2 8%	0 1%	17 3%	40 3%	1 4%	13 5%	0 0%	0 8%	0 0%	0 2%	4 5%	2 5%	0 0%	0 5%	1 5%	13 7%
1991	3642	2,3,4	0 1%	0 0%	0 0%	0 2%	1 5%	4 5%	0 7%	10 4%	53 4%	0 4%	4 9%	0 0%	0 9%	0 0%	0 0%	3 8%	1 0%	0 0%	0 5%	0 8%	17 0%
1992	4058	2,3,4,5	0 1%	0 1%	0 0%	0 4%	0 9%	9 8%	1 2%	20 2%	45 6%	1 1%	4 6%	0 0%	0 3%	0 0%	0 0%	1 4%	1 4%	0 0%	0 8%	0 5%	11 6%
1993	3979	2,3,4,5	0 3%	0 0%	0 0%	0 1%	1 4%	8 2%	1 4%	12 5%	50 4%	0 5%	3 5%	0 0%	0 6%	0 0%	0 0%	0 9%	0 5%	0 0%	1 1%	0 7%	18 0%
1994	1204	2,3,4,5	0 6%	0 0%	0 0%	0 4%	0 0%	4 4%	0 8%	5 4%	34 7%	0 2%	8 5%	0 0%	0 4%	0 0%	0 0%	4 6%	0 7%	0 0%	4 1%	2 6%	32 6%
1995	1568	2,3,4,5	0 4%	0 0%	0 0%	0 0%	0 0%	5 7%	0 6%	0 0%	33 5%	0 0%	3 1%	0 0%	0 0%	0 0%	0 0%	2 6%	1 1%	0 0%	1 7%	4 3%	47 1%
1996	1193	2,3,4,5	0 3%	0 0%	0 0%	0 0%	0 0%	0 3%	1 1%	0 0%	44 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	1 1%	5 2%	0 0%	5 4%	2 5%	39 1%
1997	886	2,3,4,5	1 0%	0 0%	0 0%	0 0%	0 6%	3 0%	1 1%	0 0%	22 2%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	3 6%	3 5%	0 0%	0 3%	2 6%	60 4%
1998	442	2,3,4,5	4 3%	0 0%	0 0%	0 0%	0 9%	0 5%	1 8%	0 0%	22 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	0 0%	9 3%	8 4%	48 4%
1999	495	2,3,4,5	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	4 0%	0 0%	37 4%	0 0%	0 0%	0 0%	1 0%	0 0%	0 6%	8 9%	0 0%	0 0%	2 6%	6 3%	37 8%
2000	764	2,3,4,5	1 6%	0 4%	0 0%	0 0%	0 0%	1 3%	5 0%	0 0%	14 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	2 4%	0 0%	0 5%	7 3%	61 6%
2001	728	2,3,4,5	0 4%	0 0%	0 0%	0 0%	0 1%	10 0%	0 0%	0 0%	27 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	13 7%	3 0%	0 0%	7 4%	2 5%	35 4%
2002	729	2,3,4,5	1 5%	0 0%	0 0%	0 0%	2 5%	4 0%	3 2%	0 0%	19 9%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	4 3%	5 9%	0 0%	13 2%	14 7%	30 3%
2003	379	2,3,4,5	2 4%	0 3%	0 0%	2 6%	3 4%	9 2%	3 2%	0 0%	28 0%	4 7%	0 0%	0 0%	0 5%	0 0%	0 0%	8 2%	4 0%	0 0%	4 7%	4 0%	24 8%
2004	372	2,3,4,5	0 0%	0 5%	0 0%	0 8%	5 1%	16 1%	12 1%	0 0%	21 2%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	7 0%	2 2%	0 0%	4 0%	3 5%	24 7%
2005	340	2,3,4,5	0 0%	0 3%	0 0%	1 5%	5 6%	24 4%	2 1%	0 0%	8 2%	0 0%	1 5%	0 0%	0 3%	0 0%	0 9%	19 1%	1 8%	0 0%	7 9%	0 0%	26 5%
2006	277	3,4,5	1 1%	0 0%	0 0%	0 7%	0 0%	22 0%	11 9%	0 0%	14 8%	0 0%	0 0%	0 0%	2 5%	0 0%	0 7%	5 4%	5 4%	0 0%	7 2%	0 0%	28 2%
2007	251	2,4,5	0 0%	0 0%	0 8%	0 0%	0 0%	9 2%	2 4%	0 0%	7 6%	0 0%	0 8%	0 0%	0 4%	0 0%	0 8%	9 2%	0 0%	0 0%	6 4%	0 0%	62 5%
2008	243	2,3,5	0 0%	0 0%	0 4%	0 0%	0 0%	13 2%	13 6%	0 0%	25 9%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	6 2%	0 8%	0 0%	7 0%	0 0%	31 7%
2009	407	2,3,4	0 0%	0 0%	0 7%	0 0%	0 0%	5 7%	11 1%	0 0%	35 1%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	6 1%	5 4%	0 0%	8 1%	0 0%	27 3%
1979-2009	1175		0 7%	0 1%	0 1%	0 3%	1 2%	7 7%	3 9%	3 3%	29 3%	0 4%	2 2%	0 0%	0 6%	0 0%	0 2%	6 0%	2 3%	0 0%	4 6%	3 1%	33 9%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	2986		0 2%	0 0%	0 0%	0 2%	0 7%	5 9%	0 8%	11 0%	43 0%	0 6%	6 3%	0 0%	0 5%	0 0%	0 0%	3 0%	1 2%	0 0%	1 4%	1 7%	23 3%
1996-1998	840		1 9%	0 0%	0 0%	0 0%	0 5%	1 3%	1 3%	0 0%	29 5%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	2 8%	2 9%	0 0%	5 0%	4 5%	49 3%
1999-2009	453		0 6%	0 1%	0 2%	0 5%	1 6%	10 5%	6 2%	0 0%	21 8%	0 4%	0 2%	0 0%	0 9%	0 0%	0 3%	8 5%	2 8%	0 0%	6 3%	3 5%	35 5%

Appendix C.11. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	3	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	242	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	378	2,3,4	5 6%	0 0%	0 0%	2 4%	6 3%	16 1%	0 0%	0 0%	0 0%	0 0%	3 7%	0 0%	10 8%	0 0%	12 7%	0 0%	0 0%	0 0%	14 8%	0 0%	27 5%
1982	435	2,3,4,5	3 7%	0 0%	0 2%	1 4%	0 0%	14 9%	0 9%	0 0%	0 0%	0 5%	3 2%	0 0%	18 4%	0 0%	10 6%	2 1%	0 0%	0 0%	7 6%	1 8%	34 7%
1983	564	2,3,4,5	3 7%	0 0%	0 0%	6 7%	0 0%	17 9%	0 0%	0 0%	0 4%	3 7%	1 1%	0 0%	6 9%	0 0%	17 6%	0 4%	0 0%	0 0%	4 4%	1 1%	36 2%
1984	748	2,3,4,5	4 4%	0 0%	0 0%	7 2%	0 8%	24 3%	0 0%	0 0%	0 0%	2 1%	1 9%	0 0%	4 5%	0 0%	0 1%	0 1%	0 0%	0 0%	15 0%	3 5%	36 0%
1985	677	2,3,4,5	3 7%	0 3%	0 0%	4 0%	0 0%	11 4%	0 0%	0 0%	0 4%	0 0%	5 6%	0 0%	4 4%	0 0%	5 2%	0 4%	0 4%	0 0%	6 1%	8 1%	49 9%
1986	1392	2,3,4,5	0 4%	0 1%	0 0%	0 2%	0 0%	12 7%	0 0%	0 0%	0 4%	0 6%	1 9%	0 0%	12 9%	0 0%	5 3%	0 2%	0 4%	0 0%	30 7%	6 8%	27 4%
1987	1316	2,3,4,5	3 7%	0 3%	0 0%	3 9%	0 0%	9 7%	1 0%	0 0%	0 0%	1 2%	0 8%	0 0%	11 4%	0 0%	7 2%	0 2%	0 5%	0 0%	22 8%	8 4%	29 0%
1988	1447	2,3,4,5	1 7%	0 3%	0 0%	1 9%	0 0%	15 9%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	15 3%	0 0%	2 0%	0 0%	0 0%	0 0%	24 0%	10 4%	27 7%
1989	574	2,3,4,5	3 3%	0 0%	0 7%	4 5%	0 0%	6 6%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	17 9%	0 0%	3 1%	0 0%	0 3%	0 0%	7 1%	7 1%	47 7%
1990	274	2,3,4,5	4 4%	0 0%	0 0%	1 8%	0 0%	14 2%	0 0%	0 0%	0 0%	2 9%	3 3%	0 0%	9 5%	0 0%	7 7%	0 0%	3 3%	0 0%	0 0%	1 1%	51 8%
1991	124	2,3,4,5	9 7%	0 0%	0 0%	3 2%	0 0%	5 6%	3 2%	0 0%	0 0%	1 6%	0 0%	0 0%	10 5%	0 0%	4 0%	0 0%	0 0%	0 0%	11 3%	5 6%	45 2%
1992	186	2,3,4,5	2 2%	0 0%	0 0%	0 0%	1 6%	17 7%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	7 0%	2 2%	4 8%	0 0%	0 0%	0 0%	3 2%	0 0%	59 1%
1993	325	2,3,4,5	3 4%	0 0%	0 0%	2 5%	0 0%	6 8%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	17 5%	0 0%	7 4%	0 0%	0 0%	0 0%	3 1%	15 1%	43 4%
1994	213	2,3,4,5	4 2%	0 0%	0 0%	1 9%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 7%
1995	169	2,3,4,5	0 6%	0 0%	0 0%	1 8%	0 0%	1 8%	2 4%	0 0%	0 0%	0 0%	1 2%	0 0%	4 7%	0 0%	0 0%	1 2%	0 0%	0 0%	1 2%	1 8%	83 4%
1996	269	2,3,4,5	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 0%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	3 3%	83 3%
1997	164	2,3,4,5	4 9%	0 0%	9 8%	3 0%	0 0%	4 9%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	5 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	68 3%
1998	81	2,3,4,5	3 7%	0 0%	0 0%	7 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 9%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	76 5%
1999	139	2,3,4,5	4 3%	0 0%	3 6%	0 0%	5 8%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	0 0%	2 9%	0 0%	0 0%	0 0%	0 0%	14 4%	56 1%
2000	98	2,3,4,5	3 1%	0 0%	0 0%	0 0%	0 0%	8 2%	12 2%	0 0%	0 0%	0 0%	0 0%	0 0%	13 3%	0 0%	2 0%	0 0%	0 0%	0 0%	5 1%	5 1%	51 0%
2001	456	2,3,4,5	0 9%	0 0%	0 0%	0 0%	0 0%	1 3%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	10 5%	0 0%	9 4%	0 0%	0 0%	0 0%	1 5%	2 4%	70 6%
2002	529	2,3,4,5	6 2%	0 0%	0 0%	0 9%	0 0%	7 8%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	25 7%	0 0%	21 4%	0 0%	0 0%	0 0%	3 4%	3 8%	27 6%
2003	519	2,3,4,5	5 0%	0 0%	0 0%	1 3%	0 0%	10 0%	1 9%	0 0%	1 3%	0 0%	0 0%	0 0%	17 1%	0 0%	6 6%	0 0%	0 0%	0 0%	8 9%	5 2%	42 6%
2004	207	2,3,4,5	4 3%	0 0%	0 0%	1 0%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 9%	0 0%	9 2%	0 0%	1 4%	0 0%	9 2%	2 4%	48 3%
2005	230	2,3,4,5	2 6%	7 4%	0 0%	2 6%	0 0%	4 3%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 8%	0 0%	5 2%	0 0%	0 0%	0 0%	3 5%	3 9%	59 6%
2006	138	2,3,4,5	5 8%	0 0%	0 0%	2 9%	0 0%	5 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	0 0%	2 2%	0 0%	0 0%	0 0%	2 2%	10 9%	64 5%
2007	135	2,3,4,5	2 2%	1 5%	0 0%	5 2%	0 0%	10 4%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	13 3%	0 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	60 0%
2008	192	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	5 2%	0 0%	1 6%	0 0%	2 6%	9 9%	70 3%
2009	330	3,4,5	2 7%	0 0%	1 5%	0 0%	2 1%	1 5%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	7 0%	0 0%	4 2%	0 0%	1 8%	0 0%	1 8%	3 0%	71 5%
1979-2009	424		3 6%	0 3%	0 5%	2 3%	0 6%	8 6%	1 2%	0 0%	0 3%	0 5%	0 9%	0 0%	10 6%	0 1%	5 6%	0 2%	0 3%	0 0%	6 6%	4 7%	53 0%
1979-1984	531		4 3%	0 0%	0 1%	4 4%	1 8%	18 3%	0 2%	0 0%	0 1%	1 6%	2 5%	0 0%	10 2%	0 0%	10 2%	0 6%	0 0%	0 0%	10 5%	1 6%	33 6%
1985-1995	609		3 4%	0 1%	0 1%	2 3%	0 1%	9 5%	0 6%	0 0%	0 1%	0 8%	1 4%	0 0%	10 4%	0 2%	4 3%	0 2%	0 5%	0 0%	10 0%	5 8%	50 3%
1996-1998	171		4 2%	0 0%	3 3%	3 5%	0 0%	1 6%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	7 1%	0 0%	0 8%	0 0%	0 0%	0 0%	0 4%	1 5%	76 0%
1999-2009	270		3 4%	0 8%	0 5%	1 3%	0 7%	6 1%	2 5%	0 0%	0 4%	0 0%	0 0%	0 0%	11 8%	0 0%	6 5%	0 0%	0 4%	0 0%	3 5%	5 5%	56 6%

Appendix C.12. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) total fishing mortalities among fisheries and escapement.

			AABM							ISBM													
Catch Year	Estimated # of CWTs	Ages Present	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	29	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	290	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	423	2,3,4	5.9%	0.0%	0.0%	2.4%	6.1%	18.7%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	12.5%	0.0%	12.5%	0.5%	0.0%	0.0%	13.5%	0.0%	24.6%
1982	507	2,3,4,5	4.1%	0.0%	0.4%	1.6%	0.0%	17.2%	1.0%	0.0%	0.0%	0.4%	3.4%	0.0%	20.1%	0.0%	10.8%	2.8%	0.0%	0.0%	6.7%	1.8%	29.8%
1983	614	2,3,4,5	4.2%	0.0%	0.0%	7.2%	0.0%	18.9%	0.0%	0.0%	0.3%	3.9%	1.0%	0.0%	7.8%	0.0%	17.8%	0.5%	0.0%	0.0%	4.2%	1.0%	33.2%
1984	792	2,3,4,5	5.2%	0.0%	0.0%	7.4%	0.9%	25.3%	0.0%	0.0%	0.0%	2.3%	1.9%	0.0%	4.8%	0.0%	0.1%	0.1%	0.0%	0.0%	14.5%	3.5%	34.0%
1985	743	2,3,4,5	4.0%	0.9%	0.0%	4.4%	0.0%	12.7%	0.0%	0.0%	0.4%	0.0%	5.7%	0.0%	5.1%	0.0%	5.7%	0.5%	0.7%	0.0%	5.8%	8.6%	45.5%
1986	1532	2,3,4,5	0.5%	0.2%	0.0%	0.2%	0.0%	14.0%	0.0%	0.0%	0.3%	0.7%	1.8%	0.0%	14.6%	0.0%	5.5%	0.3%	0.5%	0.0%	29.8%	6.7%	24.9%
1987	1481	2,3,4,5	5.6%	0.6%	0.0%	4.6%	0.0%	11.3%	0.9%	0.0%	0.0%	1.4%	0.7%	0.0%	12.2%	0.0%	7.1%	0.1%	0.5%	0.0%	21.2%	8.0%	25.7%
1988	1557	2,3,4,5	1.8%	0.6%	0.0%	2.1%	0.0%	17.9%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	15.9%	0.0%	2.0%	0.0%	0.0%	0.0%	22.8%	10.5%	25.8%
1989	609	2,3,4,5	4.3%	0.0%	0.7%	4.8%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	18.9%	0.0%	3.3%	0.0%	0.3%	0.0%	6.9%	7.4%	45.0%
1990	297	2,3,4,5	4.4%	0.0%	0.0%	2.4%	0.0%	15.5%	0.0%	0.0%	0.0%	3.4%	3.7%	0.0%	10.1%	0.0%	7.7%	0.0%	4.0%	0.0%	0.0%	1.0%	47.8%
1991	137	2,3,4,5	12.4%	0.0%	0.0%	3.6%	0.0%	6.6%	2.9%	0.0%	0.0%	1.5%	0.0%	0.0%	11.7%	0.0%	3.6%	0.0%	0.0%	0.0%	10.9%	5.8%	40.9%
1992	203	2,3,4,5	2.5%	0.0%	0.0%	0.0%	2.0%	20.2%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	7.9%	2.5%	5.4%	0.0%	0.0%	0.0%	3.0%	0.0%	54.2%
1993	367	2,3,4,5	4.1%	0.0%	0.0%	3.0%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	18.8%	0.0%	7.4%	0.0%	0.0%	0.0%	3.0%	16.6%	38.4%
1994	217	2,3,4,5	5.1%	0.0%	0.0%	2.3%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.1%
1995	174	2,3,4,5	1.7%	0.0%	0.0%	2.9%	0.0%	2.3%	2.3%	0.0%	0.0%	0.0%	1.1%	0.0%	4.6%	0.0%	0.0%	1.1%	0.0%	0.0%	1.1%	1.7%	81.0%
1996	279	2,3,4,5	5.4%	0.0%	0.0%	0.4%	0.0%	0.7%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	3.6%	80.3%
1997	174	2,3,4,5	5.7%	0.0%	10.9%	3.4%	0.0%	5.7%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	64.4%
1998	84	2,3,4,5	4.8%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	73.8%
1999	152	2,3,4,5	6.6%	0.0%	3.9%	0.0%	6.6%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	15.1%	51.3%
2000	109	2,3,4,5	3.7%	0.0%	0.0%	0.0%	0.0%	8.3%	13.8%	0.0%	0.0%	0.0%	0.0%	0.0%	16.5%	0.0%	1.8%	0.0%	0.0%	0.0%	4.6%	5.5%	45.9%
2001	479	2,3,4,5	1.0%	0.0%	0.0%	0.0%	0.0%	1.3%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	12.1%	0.0%	10.2%	0.0%	0.0%	0.0%	1.5%	2.9%	67.2%
2002	578	2,3,4,5	6.7%	0.0%	0.0%	1.0%	0.0%	7.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	27.5%	0.0%	21.5%	0.0%	0.0%	0.0%	3.3%	4.2%	25.3%
2003	547	2,3,4,5	5.3%	0.0%	0.0%	1.5%	0.0%	9.9%	2.2%	0.0%	1.5%	0.0%	0.0%	0.0%	18.3%	0.0%	6.9%	0.0%	0.0%	0.0%	8.6%	5.5%	40.4%
2004	221	2,3,4,5	5.0%	0.0%	0.0%	0.9%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.5%	0.0%	9.5%	0.0%	2.3%	0.0%	9.0%	2.7%	45.2%
2005	241	2,3,4,5	2.9%	8.7%	0.0%	2.9%	0.0%	4.1%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	5.4%	0.0%	0.0%	0.0%	3.3%	4.1%	56.8%
2006	141	2,3,4,5	5.7%	0.0%	0.0%	2.8%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	2.1%	0.0%	0.0%	0.0%	2.1%	12.1%	63.1%
2007	152	2,3,4,5	2.6%	3.3%	0.0%	5.3%	0.0%	9.9%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	17.1%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%
2008	204	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	5.9%	0.0%	3.4%	0.0%	2.5%	10.8%	66.2%
2009	340	3,4,5	2.9%	0.0%	1.5%	0.0%	2.4%	1.8%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	7.4%	0.0%	4.4%	0.0%	2.1%	0.0%	1.8%	3.5%	69.4%
1979-2009	460		4.3%	0.5%	0.6%	2.6%	0.6%	9.3%	1.3%	0.0%	0.4%	0.6%	0.9%	0.0%	11.6%	0.1%	5.8%	0.2%	0.5%	0.0%	6.2%	5.0%	49.7%
1979-1984	584		4.9%	0.0%	0.1%	4.6%	1.8%	20.0%	0.2%	0.0%	0.1%	1.6%	2.4%	0.0%	11.3%	0.0%	10.3%	1.0%	0.0%	0.0%	9.7%	1.6%	30.4%
1985-1995	665		4.2%	0.2%	0.1%	2.8%	0.2%	10.7%	0.6%	0.0%	0.1%	0.9%	1.5%	0.0%	11.2%	0.2%	4.3%	0.2%	0.6%	0.0%	9.5%	6.0%	46.9%
1996-1998	179		5.3%	0.0%	3.6%	4.0%	0.0%	2.2%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	7.5%	0.0%	0.8%	0.0%	0.0%	0.0%	0.4%	1.6%	72.8%
1999-2009	288		3.9%	1.1%	0.5%	1.3%	0.8%	6.0%	2.8%	0.0%	0.4%	0.0%	0.0%	0.0%	13.2%	0.0%	6.9%	0.0%	0.7%	0.0%	3.3%	6.0%	53.1%

Appendix C.13. Percent distribution of Dome Creek Spring (Fraser Early) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	61	3,4	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	212	3,4,5	0.9%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	92.9%
1995	463	3,4,5,6	0.0%	0.0%	0.0%	0.6%	0.0%	1.3%	0.0%	0.0%	5.8%	0.0%	12.3%	0.0%	0.4%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	3.2%	75.2%
1996	358	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	5.0%	0.0%	39.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	4.2%	49.2%
1997	280	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%	0.0%	6.8%	0.0%	31.1%	0.0%	1.4%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	58.2%
1998	516	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	73.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	19.8%
1999	21	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	9.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	28.6%
2000	74	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.3%	0.0%	23.0%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.7%
2001	269	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.7%	2.2%	0.0%	0.0%	14.1%	0.0%	55.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	24.2%
2002	148	4,5,6	0.0%	0.0%	0.0%	10.8%	0.0%	12.2%	0.0%	0.0%	10.1%	0.0%	18.2%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.3%
2003	149	3,5,6	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	6.0%	0.0%	12.1%	0.0%	61.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%
2004	4	3,4,6	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	218	3,4,5	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%	60.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	25.7%
2006	74	3,4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	9.5%	0.0%	0.0%	8.1%	0.0%	17.6%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	63.5%
2007	17	4,5,6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	0.0%	11.8%	0.0%	5.9%	0.0%	0.0%	0.0%	35.3%	0.0%	0.0%	0.0%	35.3%
2008	76	5,6	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	215		0.1%	0.0%	0.0%	1.6%	0.1%	2.2%	0.5%	0.0%	10.5%	0.0%	31.8%	0.0%	1.3%	0.0%	0.0%	0.1%	2.9%	0.0%	0.0%	3.9%	45.1%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	338		0.5%	0.0%	0.0%	0.3%	0.0%	1.6%	0.0%	0.0%	4.1%	0.0%	6.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	2.6%	84.0%
1996-1998	385		0.0%	0.0%	0.0%	0.0%	0.3%	0.4%	0.1%	0.0%	5.0%	0.0%	48.1%	0.0%	0.5%	0.0%	0.0%	0.4%	0.5%	0.0%	0.0%	2.4%	42.4%
1999-2009	121		0.0%	0.0%	0.0%	2.5%	0.1%	3.0%	0.8%	0.0%	14.2%	0.0%	32.1%	0.0%	1.9%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%	4.8%	36.2%

Appendix C.14. Percent distribution of Dome Creek Spring (Fraser Early) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	3	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	66	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	221	3,4,5	0 9%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	4 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	1 8%	89 1%
1995	480	3,4,5,6	0 0%	0 0%	0 0%	0 8%	0 0%	1 9%	0 0%	0 0%	7 1%	0 0%	12 3%	0 0%	0 4%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	3 3%	72 5%
1996	381	3,4,5,6	0 0%	0 0%	0 0%	0 8%	1 0%	0 5%	0 0%	0 0%	6 0%	0 0%	38 6%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	4 2%	46 2%
1997	292	3,4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 3%	0 0%	8 6%	0 0%	31 2%	0 0%	1 4%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	55 8%
1998	584	3,4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	76 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 9%	17 5%
1999	24	3,4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 5%	0 0%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 2%	25 0%
2000	81	3,4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	23 5%	0 0%	24 7%	0 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 1%
2001	287	3,4,5,6	0 0%	0 0%	0 0%	0 0%	1 0%	2 1%	0 0%	0 0%	17 1%	0 0%	53 7%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	22 6%
2002	154	4,5,6	0 0%	0 0%	0 0%	11 0%	0 0%	11 7%	0 0%	0 0%	11 0%	0 0%	19 5%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 5%
2003	152	3,5,6	0 0%	0 0%	0 0%	5 3%	0 0%	0 0%	7 2%	0 0%	12 5%	0 0%	59 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 1%
2004	7	3,4,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	227	3,4,5	0 0%	0 0%	0 0%	4 0%	0 0%	0 4%	0 0%	0 0%	4 0%	0 0%	59 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	7 0%	24 7%
2006	76	3,4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	10 5%	0 0%	0 0%	9 2%	0 0%	17 1%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	61 8%
2007	20	4,5,6	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 0%	0 0%	10 0%	0 0%	5 0%	0 0%	0 0%	0 0%	40 0%	0 0%	0 0%	0 0%	30 0%
2008	76	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	229		0 1%	0 0%	0 0%	1 7%	0 2%	2 4%	0 6%	0 0%	12 2%	0 0%	31 6%	0 0%	1 2%	0 0%	0 0%	0 1%	3 5%	0 0%	0 0%	4 0%	42 5%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	350		0 5%	0 0%	0 0%	0 4%	0 0%	2 3%	0 0%	0 0%	5 8%	0 0%	6 4%	0 0%	0 2%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	2 6%	80 8%
1996-1998	419		0 0%	0 0%	0 0%	0 3%	0 3%	0 6%	0 1%	0 0%	6 0%	0 0%	48 7%	0 0%	0 5%	0 0%	0 0%	0 5%	0 9%	0 0%	0 0%	2 4%	39 8%
1999-2009	128		0 0%	0 0%	0 0%	2 5%	0 1%	3 1%	0 9%	0 0%	16 2%	0 0%	31 5%	0 0%	1 7%	0 0%	0 0%	0 0%	5 1%	0 0%	0 0%	4 9%	33 9%

Appendix C.15. Percent distribution of Elk River (Oregon Coast) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	7	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	60	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	117	2,3,4	10.3%	0.0%	0.9%	14.5%	0.0%	12.8%	0.0%	0.0%	0.0%	2.6%	12.0%	0.0%	44.4%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1982	873	2,3,4,5	2.1%	1.5%	0.6%	5.2%	0.0%	14.8%	0.0%	0.0%	0.0%	0.9%	1.9%	0.0%	50.7%	0.0%	2.6%	1.0%	0.0%	0.0%	0.0%	0.0%	18.7%
1983	2640	2,3,4,5	2.9%	0.1%	0.0%	6.5%	0.0%	7.7%	0.2%	0.0%	0.0%	1.4%	0.0%	0.0%	11.9%	0.0%	0.5%	0.0%	0.3%	0.0%	0.0%	0.0%	68.5%
1984	1845	2,3,4,5	2.8%	0.0%	0.0%	5.1%	0.2%	6.6%	0.0%	0.0%	0.0%	0.7%	0.3%	0.0%	9.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	73.7%
1985	1346	2,3,4,5	2.2%	0.0%	0.0%	2.7%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	7.1%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	2.5%	82.0%
1986	792	2,3,4,5	1.4%	0.0%	0.0%	3.2%	0.0%	13.1%	0.5%	0.0%	0.5%	2.3%	0.0%	0.0%	36.1%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.3%	41.7%
1987	1475	2,3,4,5	0.9%	0.0%	0.0%	4.2%	0.0%	6.6%	0.9%	0.0%	0.0%	0.9%	0.0%	0.0%	29.6%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	55.5%
1988	1337	2,3,4,5	0.6%	0.0%	0.0%	3.7%	0.0%	4.8%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	28.6%	0.0%	0.8%	0.0%	0.3%	0.0%	0.0%	0.2%	62.5%
1989	898	2,3,4,5	0.8%	0.0%	0.4%	1.8%	0.8%	2.4%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	39.3%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.7%
1990	336	2,3,4,5	1.5%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	67.6%
1991	331	2,3,4,5	0.0%	0.0%	0.0%	2.7%	0.0%	6.9%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	6.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	80.7%
1992	390	2,3,4,5	2.1%	1.0%	0.0%	0.0%	0.0%	6.9%	1.0%	0.0%	0.0%	0.0%	0.5%	0.0%	13.1%	0.0%	0.5%	0.8%	0.0%	0.0%	0.0%	9.2%	64.9%
1993	711	2,3,4,5	1.3%	0.0%	0.0%	1.7%	0.8%	4.4%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	22.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	9.7%	58.8%
1994	1266	2,3,4,5	2.1%	0.2%	0.0%	1.7%	0.5%	2.9%	0.0%	0.0%	0.0%	0.2%	0.7%	0.0%	21.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.2%	50.2%
1995	2671	2,3,4,5	1.5%	0.1%	0.4%	0.9%	0.2%	1.7%	0.3%	0.0%	0.0%	0.0%	0.7%	0.0%	16.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	19.3%	58.6%
1996	4589	2,3,4,5	1.3%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	30.1%	0.0%	0.2%	0.0%	0.2%	0.0%	0.0%	7.9%	59.8%
1997	3892	2,3,4,5	12.8%	0.1%	0.0%	1.6%	0.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	19.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.6%	46.2%
1998	5907	2,3,4,5	6.9%	0.0%	0.0%	3.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	9.5%	67.4%
1999	5811	2,3,4,5	5.0%	0.0%	0.3%	1.5%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%	15.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	16.4%	60.9%
2000	4781	2,3,4,5	5.7%	0.0%	0.1%	1.4%	0.5%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	22.9%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	14.1%	53.7%
2001	16488	2,3,4,5	2.3%	0.1%	0.2%	1.2%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	10.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	12.6%	71.8%
2002	10694	2,3,4,5	4.8%	0.0%	0.5%	3.6%	0.6%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	11.3%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	6.5%	70.6%
2003	6102	2,3,4,5	5.3%	0.0%	0.3%	3.2%	0.4%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.7%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	18.6%	53.3%
2004	10820	2,3,4,5	3.7%	0.0%	0.2%	1.8%	0.3%	1.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	6.1%	73.9%
2005	2848	2,3,4,5	8.4%	0.0%	0.2%	4.7%	1.8%	4.2%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	12.3%	51.1%
2006	2885	2,3,4,5	5.5%	0.0%	0.0%	4.4%	1.4%	4.9%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	29.5%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	11.5%	49.6%
2007	2071	2,3,4,5	7.8%	0.0%	0.8%	4.2%	0.9%	1.7%	0.5%	0.0%	0.3%	0.0%	0.0%	0.0%	26.9%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	18.7%	36.6%
2008	3974	2,3,4,5	3.9%	0.0%	0.0%	3.6%	1.6%	1.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.2%	0.0%	0.0%	0.0%	0.1%	19.6%	64.2%
2009	1078	2,3,4,5	17.1%	0.0%	0.4%	12.2%	2.0%	5.1%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.8%	0.0%	0.3%	0.0%	0.0%	45.9%	7.3%
1979-2009	3405		4.2%	0.1%	0.2%	3.5%	0.4%	4.2%	0.4%	0.0%	0.0%	0.4%	0.6%	0.0%	29.2%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	9.7%	55.3%
1979-1984	1369		4.5%	0.4%	0.4%	7.8%	0.0%	10.5%	0.0%	0.0%	0.0%	1.4%	3.5%	0.0%	29.3%	0.0%	1.4%	0.3%	0.1%	0.0%	0.0%	0.2%	40.2%
1985-1995	1050		1.3%	0.2%	0.1%	2.1%	0.2%	5.0%	0.4%	0.0%	0.0%	0.4%	0.4%	0.0%	22.1%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	5.7%	61.5%
1996-1998	4796		7.0%	0.0%	0.0%	1.6%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	29.7%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	12.0%	57.8%
1999-2009	6121		6.3%	0.0%	0.3%	3.8%	0.9%	2.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.9%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	16.6%	53.9%

Appendix C.16. Percent distribution of Elk River (Oregon Coast) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	26	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	83	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	298	2,3,4	8 7%	0 3%	0 7%	13 8%	0 0%	18 5%	0 0%	0 0%	0 0%	2 3%	5 0%	0 0%	48 0%	0 0%	1 7%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1982	1087	2,3,4,5	2 9%	1 3%	0 7%	6 0%	0 0%	15 6%	0 0%	0 0%	0 0%	0 9%	1 7%	0 0%	52 3%	0 0%	2 4%	1 1%	0 0%	0 0%	0 0%	0 0%	15 0%
1983	2777	2,3,4,5	3 7%	0 1%	0 0%	6 9%	0 0%	8 3%	0 1%	0 0%	0 0%	1 5%	0 0%	0 0%	13 3%	0 0%	0 5%	0 0%	0 4%	0 0%	0 0%	0 0%	65 1%
1984	1901	2,3,4,5	3 8%	0 0%	0 0%	5 3%	0 2%	6 8%	0 0%	0 0%	0 0%	0 7%	0 3%	0 0%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	71 5%
1985	1389	2,3,4,5	2 6%	0 0%	0 0%	3 1%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	8 1%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	2 7%	79 5%
1986	918	2,3,4,5	2 1%	0 0%	0 0%	3 2%	0 0%	13 9%	0 4%	0 0%	0 4%	2 4%	0 0%	0 0%	40 4%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 2%	35 9%
1987	1617	2,3,4,5	1 1%	0 0%	0 0%	4 8%	0 0%	7 8%	0 9%	0 0%	0 0%	1 0%	0 0%	0 0%	32 3%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	50 6%
1988	1439	2,3,4,5	0 8%	0 0%	0 0%	4 5%	0 0%	5 8%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	29 0%	0 0%	0 8%	0 0%	0 3%	0 0%	0 0%	0 2%	58 0%
1989	958	2,3,4,5	1 0%	0 0%	0 5%	1 9%	0 6%	2 7%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	41 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	50 3%
1990	357	2,3,4,5	1 7%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	28 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	63 6%
1991	351	2,3,4,5	0 0%	1 1%	0 0%	3 4%	0 0%	8 8%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	76 1%
1992	498	2,3,4,5	4 4%	3 0%	0 0%	0 0%	0 0%	11 2%	1 2%	0 0%	0 0%	0 0%	0 4%	0 0%	18 5%	0 0%	0 6%	1 6%	0 0%	0 0%	0 0%	8 2%	50 8%
1993	880	2,3,4,5	3 4%	0 0%	0 0%	3 0%	0 6%	6 9%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	28 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	9 0%	47 5%
1994	1398	2,3,4,5	4 5%	0 7%	0 0%	2 4%	0 6%	3 4%	0 0%	0 0%	0 0%	0 2%	0 8%	0 0%	21 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 7%	45 5%
1995	2926	2,3,4,5	2 9%	0 2%	0 7%	1 5%	0 3%	2 6%	0 3%	0 0%	0 0%	0 0%	1 1%	0 0%	16 2%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	20 5%	53 5%
1996	4816	2,3,4,5	2 3%	0 0%	0 0%	0 2%	0 2%	0 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	30 9%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	8 6%	57 0%
1997	4399	2,3,4,5	16 0%	0 1%	0 0%	1 8%	0 4%	1 3%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	21 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 3%	40 9%
1998	6252	2,3,4,5	8 3%	0 0%	0 0%	3 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	10 0%	63 7%
1999	6407	2,3,4,5	7 7%	0 0%	0 4%	1 7%	0 3%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	17 7%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	16 5%	55 2%
2000	5444	2,3,4,5	8 0%	0 1%	0 1%	1 6%	0 6%	0 7%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	26 1%	0 0%	0 7%	0 1%	0 0%	0 0%	0 0%	14 8%	47 2%
2001	17339	2,3,4,5	3 2%	0 1%	0 2%	1 5%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	11 8%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	13 4%	68 3%
2002	11332	2,3,4,5	6 0%	0 0%	0 6%	4 2%	0 8%	0 9%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	12 8%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	6 8%	66 6%
2003	6545	2,3,4,5	6 2%	0 0%	0 3%	3 6%	0 5%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 2%	49 7%
2004	11209	2,3,4,5	4 3%	0 0%	0 3%	2 0%	0 4%	1 8%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	13 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	6 5%	71 4%
2005	3094	2,3,4,5	9 9%	0 0%	0 2%	5 2%	1 9%	4 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	17 4%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	12 5%	47 0%
2006	2978	2,3,4,5	6 7%	0 0%	0 0%	4 9%	1 8%	5 1%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	23 1%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	11 6%	44 4%
2007	2385	2,3,4,5	9 9%	0 1%	0 9%	4 8%	1 0%	1 5%	0 5%	0 0%	0 3%	0 0%	0 0%	0 0%	28 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	19 0%	31 8%
2008	4153	2,3,4,5	4 7%	0 0%	0 0%	3 8%	1 9%	1 6%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	20 5%	61 5%
2009	1258	2,3,4,5	18 4%	0 0%	0 4%	11 9%	2 1%	4 7%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	5 6%	0 0%	0 8%	0 0%	0 4%	0 0%	0 0%	46 2%	6 3%
1979-2009	3669		5 4%	0 2%	0 2%	3 8%	0 5%	4 9%	0 4%	0 0%	0 0%	0 4%	0 4%	0 0%	22 2%	0 0%	0 6%	0 1%	0 0%	0 0%	0 0%	9 9%	50 8%
1979-1984	1516		4 8%	0 4%	0 4%	8 0%	0 0%	12 3%	0 0%	0 0%	0 0%	1 4%	1 8%	0 0%	31 0%	0 0%	1 1%	0 5%	0 1%	0 0%	0 0%	0 2%	37 9%
1985-1995	1157		2 2%	0 5%	0 1%	2 5%	0 2%	6 3%	0 4%	0 0%	0 0%	0 5%	0 4%	0 0%	24 7%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	5 7%	55 6%
1996-1998	5156		8 9%	0 0%	0 0%	1 9%	0 3%	0 4%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	22 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	12 3%	53 9%
1999-2009	6559		7 7%	0 0%	0 3%	4 1%	1 0%	2 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	16 4%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	17 0%	49 9%

Appendix C.17. Percent distribution of Elwha River reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	23	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	185	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	642	2,3,4	24 3%	1 7%	0 0%	2 3%	0 5%	18 1%	0 9%	0 8%	6 4%	0 8%	6 2%	0 0%	0 9%	0 0%	0 0%	12 1%	13 4%	0 0%	0 2%	0 0%	11 4%
1987	401	2,3,4,5	14 7%	0 0%	0 0%	4 5%	2 0%	14 2%	2 5%	0 7%	9 0%	2 2%	5 7%	0 0%	3 0%	0 2%	0 0%	6 5%	18 7%	0 0%	0 0%	0 0%	16 0%
1988	430	2,3,4,5	5 3%	0 5%	0 5%	3 7%	2 3%	13 7%	6 0%	0 5%	0 0%	1 4%	1 2%	0 0%	4 4%	0 0%	0 0%	8 1%	8 4%	0 0%	4 0%	0 0%	40 0%
1989	279	3,4,5	6 1%	1 8%	0 0%	4 7%	2 2%	5 7%	0 0%	0 0%	0 0%	3 2%	0 0%	0 0%	2 9%	0 0%	0 4%	9 3%	13 3%	0 0%	2 2%	0 0%	48 4%
1990	39	2,4,5	0 0%	0 0%	0 0%	12 8%	0 0%	15 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	10 3%	0 0%	5 1%	0 0%	51 3%
1991	14	2,3,5	0 0%	0 0%	0 0%	0 0%	0 0%	14 3%	0 0%	0 0%	0 0%	0 0%	7 1%	0 0%	7 1%	0 0%	0 0%	71 4%	0 0%	0 0%	0 0%	0 0%	0 0%
1992	58	2,3,4	1 7%	0 0%	0 0%	0 0%	0 0%	43 1%	3 4%	0 0%	0 0%	0 0%	8 6%	0 0%	17 2%	0 0%	0 0%	0 0%	22 4%	0 0%	0 0%	0 0%	3 4%
1993	129	2,3,4,5	9 3%	0 0%	0 0%	0 0%	0 0%	14 0%	11 6%	1 6%	10 9%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	28 7%	0 0%	3 1%	0 0%	17 8%
1994	78	2,3,4,5	3 9%	0 0%	0 0%	9 2%	0 0%	17 1%	0 0%	3 9%	2 6%	0 0%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 3%
1995	117	2,3,4,5	0 0%	0 0%	0 0%	0 0%	2 6%	26 5%	2 6%	0 0%	0 0%	2 6%	6 0%	0 0%	1 7%	0 0%	0 0%	0 9%	10 3%	0 0%	0 0%	0 0%	47 0%
1996	289	2,3,4,5	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	3 1%	0 0%	2 1%	0 0%	0 7%	0 0%	0 0%	0 0%	6 2%	0 0%	0 0%	0 0%	81 3%
1997	182	3,4,5	13 7%	0 0%	0 0%	1 6%	0 0%	4 9%	0 0%	0 0%	6 6%	0 0%	3 3%	0 0%	1 1%	0 0%	0 0%	0 0%	11 5%	0 0%	0 0%	0 0%	57 1%
1998	171	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	27	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	221		6 9%	0 3%	0 0%	3 2%	0 8%	15 6%	2 5%	0 6%	3 2%	0 9%	4 0%	0 0%	3 5%	0 0%	0 0%	9 5%	11 9%	0 0%	1 2%	0 0%	35 8%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	218		6 5%	0 4%	0 0%	3 7%	1 0%	18 2%	2 7%	0 7%	2 9%	1 0%	4 3%	0 0%	4 0%	0 0%	0 0%	11 4%	12 5%	0 0%	1 4%	0 0%	29 1%
1996-1998	236		8 6%	0 0%	0 0%	0 8%	0 0%	2 5%	1 6%	0 0%	4 9%	0 0%	2 7%	0 0%	0 9%	0 0%	0 0%	0 0%	8 9%	0 0%	0 0%	0 0%	69 2%
1999-2009	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Appendix C.18. Percent distribution of Elwha River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	60	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	254	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	721	2,3,4	23 9%	3 2%	0 0%	2 5%	0 7%	17 6%	1 1%	0 8%	6 0%	1 0%	6 0%	0 0%	1 1%	0 0%	0 0%	11 1%	14 8%	0 0%	0 1%	0 0%	10 1%
1987	463	2,3,4,5	14 5%	0 0%	0 0%	5 2%	1 9%	16 0%	2 4%	0 9%	8 4%	2 6%	5 2%	0 0%	3 0%	0 2%	0 0%	5 8%	20 1%	0 0%	0 0%	0 0%	13 8%
1988	463	2,3,4,5	5 4%	0 9%	0 6%	3 9%	2 4%	15 6%	6 0%	0 4%	0 0%	1 5%	1 3%	0 0%	4 5%	0 0%	0 0%	7 8%	8 9%	0 0%	3 7%	0 0%	37 1%
1989	298	3,4,5	6 0%	5 4%	0 0%	4 7%	2 0%	5 7%	0 0%	0 0%	0 0%	3 0%	0 0%	0 0%	2 7%	0 0%	0 3%	8 7%	14 1%	0 0%	2 0%	0 0%	45 3%
1990	41	2,4,5	0 0%	0 0%	0 0%	12 2%	0 0%	17 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	12 2%	0 0%	4 9%	0 0%	48 8%
1991	28	2,3,5	3 6%	0 0%	0 0%	0 0%	0 0%	25 0%	0 0%	0 0%	0 0%	0 0%	3 6%	0 0%	7 1%	0 0%	0 0%	50 0%	10 7%	0 0%	0 0%	0 0%	0 0%
1992	81	2,3,4	2 5%	0 0%	0 0%	1 2%	0 0%	38 3%	3 7%	1 2%	1 2%	0 0%	7 4%	0 0%	13 6%	0 0%	0 0%	0 0%	28 4%	0 0%	0 0%	0 0%	2 5%
1993	157	2,3,4,5	12 1%	0 0%	0 0%	0 0%	0 0%	15 3%	10 2%	2 5%	11 5%	0 0%	0 0%	0 0%	2 5%	0 0%	0 0%	0 0%	28 7%	0 0%	2 5%	0 0%	14 6%
1994	86	2,3,4,5	8 1%	0 0%	0 0%	9 3%	0 0%	18 6%	0 0%	4 7%	2 3%	0 0%	8 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 8%
1995	153	2,3,4,5	0 0%	0 0%	0 0%	0 0%	2 6%	32 7%	2 6%	0 0%	0 0%	3 9%	6 5%	0 0%	1 3%	0 0%	0 0%	0 7%	13 7%	0 0%	0 0%	0 0%	35 9%
1996	311	2,3,4,5	4 2%	0 0%	0 0%	1 3%	0 0%	1 6%	3 2%	0 0%	3 5%	0 0%	2 6%	0 0%	0 6%	0 0%	0 0%	0 0%	7 4%	0 0%	0 0%	0 0%	75 6%
1997	197	3,4,5	15 2%	0 0%	0 5%	2 0%	0 0%	5 1%	0 0%	0 0%	6 6%	0 0%	3 0%	0 0%	1 0%	0 0%	0 0%	0 0%	13 7%	0 0%	0 0%	0 0%	52 8%
1998	173	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	27	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	250		8 0%	0 8%	0 1%	3 5%	0 8%	17 4%	2 4%	0 9%	3 3%	1 0%	3 6%	0 0%	3 1%	0 0%	0 0%	7 4%	14 4%	0 0%	1 1%	0 0%	32 1%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	249		7 6%	0 9%	0 1%	3 9%	1 0%	20 2%	2 6%	1 1%	2 9%	1 2%	3 8%	0 0%	3 6%	0 0%	0 0%	8 9%	15 2%	0 0%	1 3%	0 0%	25 7%
1996-1998	254		9 7%	0 0%	0 3%	1 7%	0 0%	3 3%	1 6%	0 0%	5 1%	0 0%	2 8%	0 0%	0 8%	0 0%	0 0%	0 0%	10 6%	0 0%	0 0%	0 0%	64 2%
1999-2009	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Appendix C.19. Percent distribution of George Adams Fall Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	69	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	256	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	611	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	796	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	20 9%	0 0%	0 3%	4 1%	0 5%	0 6%	0 0%	3 0%	0 0%	0 4%	30 4%	10 3%	0 0%	7 7%	0 0%	21 9%
1983	575	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	15 8%	0 5%	0 0%	3 5%	1 6%	5 7%	0 0%	0 2%	0 0%	0 9%	21 0%	24 9%	0 0%	8 7%	0 0%	17 2%
1984	979	3,4,5	0 0%	0 1%	0 0%	0 5%	0 4%	18 1%	0 0%	1 2%	4 5%	3 2%	1 9%	0 0%	2 2%	0 0%	0 4%	12 7%	20 2%	0 0%	18 6%	0 0%	15 9%
1985	348	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	17	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	83	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	733	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	1657	2,3,4	0 0%	0 2%	0 0%	0 0%	0 0%	8 5%	1 7%	0 0%	3 8%	0 0%	4 8%	0 0%	12 9%	0 2%	0 9%	18 1%	14 8%	0 0%	20 3%	1 4%	12 2%
1990	1340	2,3,4,5	0 1%	0 0%	0 0%	0 4%	0 0%	19 3%	5 0%	0 0%	4 7%	0 3%	1 6%	0 0%	15 0%	0 0%	0 4%	11 3%	17 7%	0 0%	17 0%	0 3%	6 8%
1991	982	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	18 4%	4 5%	0 0%	2 2%	0 0%	0 4%	0 0%	8 6%	0 0%	0 0%	18 8%	17 2%	0 0%	14 5%	0 8%	14 4%
1992	192	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	15 6%	0 0%	0 0%	2 1%	0 0%	5 7%	0 0%	20 3%	0 0%	0 0%	2 6%	39 6%	0 0%	6 8%	0 0%	7 3%
1993	114	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	34 2%	7 9%	0 9%	3 5%	0 0%	0 0%	0 0%	8 8%	0 0%	0 0%	4 4%	21 9%	0 0%	0 0%	0 0%	18 4%
1994	43	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 0%	7 0%	0 0%	0 0%	0 0%	72 1%
1995	206	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	7 8%	3 9%	0 0%	3 9%	0 0%	2 4%	0 0%	1 0%	0 0%	0 0%	4 4%	18 4%	0 0%	0 0%	0 0%	58 3%
1996	339	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	0 0%	12 7%	0 0%	2 1%	0 0%	5 9%	0 0%	0 6%	0 0%	13 3%	0 0%	0 0%	0 0%	60 8%
1997	341	2,3,4,5	2 1%	0 0%	0 0%	0 0%	0 0%	4 7%	1 8%	0 0%	3 2%	0 0%	0 3%	0 0%	3 2%	0 0%	0 0%	0 9%	19 9%	0 0%	0 0%	0 0%	63 9%
1998	447	2,3,4,5	0 7%	0 2%	0 0%	0 0%	0 0%	0 2%	1 1%	0 0%	0 7%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	1 8%	7 2%	0 0%	0 0%	0 0%	86 4%
1999	831	2,3,4,5	0 4%	0 0%	0 0%	0 0%	0 0%	0 8%	9 0%	0 0%	2 5%	0 0%	0 0%	0 0%	4 9%	0 0%	1 3%	2 3%	9 5%	0 0%	0 6%	0 0%	68 6%
2000	826	2,3,4,5	0 4%	0 0%	0 0%	0 4%	0 0%	21 1%	8 5%	0 0%	2 7%	0 0%	0 1%	0 0%	3 5%	0 0%	0 0%	0 4%	5 9%	0 0%	0 0%	11 6%	45 5%
2001	779	2,3,4,5	0 8%	0 0%	0 0%	0 0%	0 1%	12 3%	2 1%	0 0%	2 2%	0 0%	0 0%	0 0%	6 4%	0 0%	1 0%	5 6%	8 5%	0 0%	5 4%	0 5%	55 1%
2002	961	2,3,4,5	1 5%	0 0%	0 0%	1 0%	0 0%	11 2%	10 2%	0 0%	1 8%	0 0%	0 0%	0 0%	4 1%	0 0%	1 0%	7 2%	4 7%	0 0%	3 9%	9 4%	44 1%
2003	950	2,3,4,5	0 5%	0 1%	0 0%	0 0%	0 0%	11 6%	2 0%	0 0%	2 7%	0 0%	0 0%	0 0%	6 4%	0 0%	0 2%	4 2%	6 1%	0 0%	6 3%	11 9%	47 9%
2004	1315	2,3,4,5	0 5%	0 2%	0 0%	0 0%	0 0%	14 7%	3 0%	0 2%	2 3%	0 0%	0 3%	0 0%	6 1%	0 0%	0 5%	7 2%	5 5%	0 0%	4 6%	1 2%	53 7%
2005	1545	2,3,4,5	0 3%	0 0%	0 0%	0 1%	0 8%	11 8%	8 4%	0 0%	5 6%	0 0%	0 0%	0 0%	6 8%	0 0%	1 3%	2 6%	6 8%	0 0%	2 8%	6 3%	46 3%
2006	1086	2,3,4,5	0 4%	0 2%	0 0%	0 7%	0 0%	12 2%	1 8%	0 0%	4 4%	0 0%	0 0%	0 0%	5 2%	0 0%	0 4%	7 6%	8 0%	0 0%	6 3%	1 4%	51 4%
2007	1613	2,3,4,5	0 2%	0 2%	0 0%	0 0%	0 0%	10 2%	1 7%	0 0%	2 5%	0 0%	0 0%	0 0%	3 7%	0 0%	0 2%	2 5%	11 6%	0 0%	10 2%	10 9%	46 1%
2008	1116	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	4 0%	0 0%	2 3%	0 0%	0 0%	0 0%	1 3%	0 4%	0 7%	6 1%	8 3%	0 0%	10 0%	0 0%	62 9%
2009	1365	2,3,4,5	0 0%	0 0%	0 0%	0 2%	0 0%	5 6%	5 8%	0 0%	4 8%	0 0%	0 0%	0 0%	2 2%	0 0%	0 4%	3 3%	10 0%	0 0%	3 1%	0 0%	64 6%
1979-2009	850		0 3%	0 1%	0 0%	0 1%	0 1%	11 6%	3 7%	0 4%	3 4%	0 2%	1 1%	0 0%	5 6%	0 0%	0 4%	7 9%	13 2%	0 0%	6 1%	2 3%	43 4%
1979-1984	783		0 0%	0 0%	0 0%	0 2%	0 1%	18 3%	0 2%	0 5%	4 0%	1 7%	2 8%	0 0%	1 8%	0 0%	0 6%	21 4%	18 5%	0 0%	11 6%	0 0%	18 3%
1985-1995	648		0 1%	0 0%	0 0%	0 1%	0 0%	14 8%	3 3%	1 1%	2 9%	0 0%	2 1%	0 0%	9 5%	0 0%	0 2%	10 5%	19 5%	0 0%	8 4%	0 4%	27 1%
1996-1998	376		0 9%	0 1%	0 0%	0 0%	0 0%	1 6%	2 5%	0 0%	5 5%	0 0%	0 8%	0 0%	3 6%	0 0%	0 2%	0 9%	13 5%	0 0%	0 0%	0 0%	70 4%
1999-2009	1126		0 4%	0 1%	0 0%	0 2%	0 1%	10 5%	5 1%	0 0%	3 1%	0 0%	0 0%	0 0%	4 6%	0 0%	0 6%	4 5%	7 7%	0 0%	4 8%	4 8%	53 3%

Appendix C 20. Percent distribution of George Adams Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	70	4,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	403	2,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	715	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	859	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	21.7%	0.0%	0.2%	4.1%	0.6%	0.8%	0.0%	2.9%	0.0%	0.5%	29.2%	12.3%	0.0%	7.5%	0.0%	20.3%
1983	889	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	0.3%	0.0%	2.4%	1.2%	4.2%	0.0%	0.1%	0.0%	0.6%	19.7%	41.7%	0.0%	6.0%	0.0%	11.0%
1984	1086	3,4,5	0.0%	0.1%	0.0%	0.6%	0.5%	18.1%	0.0%	1.2%	4.4%	3.2%	1.8%	0.0%	2.2%	0.0%	0.4%	12.9%	22.1%	0.0%	17.8%	0.0%	14.6%
1985	363	4,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	18	5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	221	2	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	913	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	1955	2,3,4	0.0%	0.8%	0.0%	0.1%	0.0%	10.3%	1.8%	0.0%	3.9%	0.1%	4.3%	0.0%	13.0%	0.2%	0.8%	17.5%	17.6%	0.0%	17.9%	1.4%	10.3%
1990	1547	2,3,4,5	0.7%	0.0%	0.0%	0.5%	0.0%	21.2%	4.7%	0.0%	4.9%	0.4%	1.5%	0.0%	15.5%	0.0%	0.4%	10.5%	18.2%	0.0%	15.4%	0.3%	5.9%
1991	1059	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.0%	19.5%	4.5%	0.0%	2.3%	0.0%	0.4%	0.0%	8.7%	0.0%	0.0%	17.8%	18.8%	0.0%	13.7%	0.8%	13.3%
1992	217	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	16.6%	0.0%	0.0%	1.8%	0.0%	5.1%	0.0%	20.3%	0.0%	0.0%	2.3%	41.5%	0.0%	6.0%	0.0%	6.5%
1993	135	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	34.1%	7.4%	1.5%	3.7%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	4.4%	25.2%	0.0%	0.0%	0.0%	15.6%
1994	46	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	10.4%	0.0%	0.0%	0.0%	64.6%
1995	261	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	9.6%	3.8%	0.0%	4.2%	0.0%	3.4%	0.0%	0.8%	0.0%	0.0%	4.2%	28.0%	0.0%	0.0%	0.0%	46.0%
1996	369	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	4.6%	0.0%	14.4%	0.0%	2.2%	0.0%	5.7%	0.0%	0.5%	0.0%	15.4%	0.0%	0.0%	0.0%	55.8%
1997	375	2,3,4,5	1.9%	0.0%	0.0%	0.0%	0.0%	5.1%	1.6%	0.0%	3.2%	0.0%	0.5%	0.0%	3.2%	0.0%	0.0%	0.8%	25.6%	0.0%	0.0%	0.0%	58.1%
1998	585	2,3,4,5	0.7%	0.3%	0.0%	0.0%	0.0%	0.2%	1.2%	0.0%	0.9%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	2.1%	27.0%	0.0%	0.0%	0.0%	66.0%
1999	897	2,3,4,5	0.6%	0.0%	0.0%	0.0%	0.0%	0.9%	9.1%	0.0%	3.1%	0.0%	0.0%	0.0%	5.8%	0.0%	1.4%	2.2%	12.7%	0.0%	0.6%	0.0%	63.5%
2000	948	2,3,4,5	0.4%	0.0%	0.0%	0.4%	0.0%	20.6%	8.8%	0.0%	2.8%	0.0%	0.2%	0.0%	3.6%	0.0%	0.0%	0.3%	11.5%	0.0%	0.0%	11.7%	39.7%
2001	889	2,3,4,5	0.9%	0.0%	0.0%	0.0%	0.1%	11.7%	2.1%	0.0%	2.5%	0.0%	0.0%	0.0%	6.9%	0.0%	1.0%	5.5%	15.4%	0.0%	5.1%	0.6%	48.3%
2002	1053	2,3,4,5	1.7%	0.0%	0.0%	1.1%	0.0%	11.0%	11.1%	0.0%	1.9%	0.0%	0.0%	0.0%	4.4%	0.0%	1.0%	7.0%	7.0%	0.0%	3.6%	9.8%	40.3%
2003	1043	2,3,4,5	0.6%	0.2%	0.0%	0.0%	0.0%	11.5%	2.3%	0.0%	3.1%	0.0%	0.0%	0.0%	6.9%	0.0%	0.2%	4.1%	9.0%	0.0%	6.0%	12.5%	43.6%
2004	1449	2,3,4,5	0.6%	0.3%	0.0%	0.0%	0.0%	14.6%	3.3%	0.1%	2.6%	0.0%	0.6%	0.0%	6.7%	0.0%	0.6%	7.6%	8.6%	0.0%	4.5%	1.3%	48.7%
2005	1734	2,3,4,5	0.3%	0.0%	0.0%	0.1%	1.0%	11.4%	8.9%	0.0%	6.4%	0.0%	0.0%	0.0%	7.3%	0.0%	1.3%	2.5%	10.0%	0.0%	2.7%	6.8%	41.2%
2006	1189	2,3,4,5	0.4%	0.3%	0.0%	0.8%	0.0%	11.9%	2.0%	0.0%	5.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.4%	7.9%	11.0%	0.0%	6.1%	1.5%	46.8%
2007	1868	2,3,4,5	0.3%	0.4%	0.0%	0.0%	0.0%	9.7%	1.8%	0.0%	2.6%	0.0%	0.0%	0.0%	3.7%	0.0%	0.2%	2.4%	18.9%	0.0%	9.3%	11.0%	39.8%
2008	1218	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	4.4%	0.0%	2.8%	0.0%	0.0%	0.0%	1.5%	0.5%	0.7%	6.4%	12.2%	0.0%	9.9%	0.0%	57.6%
2009	1679	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.0%	5.3%	5.8%	0.0%	5.2%	0.0%	0.0%	0.0%	2.2%	0.0%	0.4%	3.5%	22.2%	0.0%	2.7%	0.0%	52.5%
1979-2009	973		0.4%	0.1%	0.0%	0.2%	0.1%	11.8%	3.7%	0.5%	3.7%	0.2%	1.0%	0.0%	5.7%	0.0%	0.4%	7.8%	18.4%	0.0%	5.6%	2.4%	37.9%
1979-1984	941		0.0%	0.0%	0.0%	0.2%	0.2%	17.5%	0.1%	0.5%	3.6%	1.7%	2.3%	0.0%	1.8%	0.0%	0.5%	20.6%	25.4%	0.0%	10.4%	0.0%	15.3%
1985-1995	748		0.1%	0.1%	0.0%	0.1%	0.0%	15.9%	3.2%	1.4%	3.0%	0.1%	2.1%	0.0%	9.5%	0.0%	0.2%	10.5%	22.8%	0.0%	7.6%	0.4%	23.2%
1996-1998	443		0.9%	0.1%	0.0%	0.0%	0.0%	2.2%	2.5%	0.0%	6.1%	0.0%	0.9%	0.0%	3.5%	0.0%	0.2%	1.0%	22.7%	0.0%	0.0%	0.0%	60.0%
1999-2009	1270		0.5%	0.1%	0.0%	0.2%	0.1%	10.2%	5.4%	0.0%	3.5%	0.0%	0.1%	0.0%	5.0%	0.0%	0.7%	4.5%	12.6%	0.0%	4.6%	5.0%	47.5%

Appendix C.21. Percent distribution of Hanford Wild Brights reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	74	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	92	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	440	2,3,4	8.4%	0.5%	0.0%	4.3%	0.0%	8.4%	3.6%	0.0%	0.0%	0.5%	0.7%	0.0%	0.5%	0.0%	0.9%	0.0%	0.0%	0.0%	22.5%	6.1%	43.6%
1991	591	2,3,4,5	8.6%	0.0%	1.4%	9.5%	0.5%	4.7%	0.0%	0.0%	0.8%	0.2%	0.0%	0.0%	1.0%	0.0%	0.5%	0.0%	0.0%	0.0%	23.4%	3.9%	45.5%
1992	287	2,3,4,5	16.4%	1.7%	1.4%	5.9%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	18.5%	1.7%	36.2%
1993	378	2,3,4,5	14.0%	0.0%	2.1%	2.9%	1.3%	5.3%	1.9%	0.0%	0.0%	0.0%	2.4%	0.0%	3.7%	0.0%	0.0%	0.0%	0.8%	0.0%	16.1%	7.4%	42.1%
1994	724	2,3,4,5	14.4%	0.8%	0.0%	4.8%	0.0%	4.4%	0.0%	0.0%	0.0%	0.3%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	12.6%	5.4%	55.2%
1995	655	2,3,4,5	11.0%	0.0%	3.7%	4.3%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.8%	7.0%	62.0%
1996	591	2,3,4,5	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.4%	7.8%	53.5%
1997	632	2,3,4,5	16.3%	0.6%	0.9%	3.6%	2.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	13.9%	7.0%	53.5%
1998	326	2,3,4,5	12.9%	0.0%	0.0%	8.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.5%	6.4%	54.0%
1999	259	2,3,4,5	9.7%	0.4%	1.9%	12.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	6.2%	57.9%
2000	219	2,3,4,5	16.4%	0.5%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.2%	5.5%	46.6%
2001	346	2,3,4,5	4.3%	1.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	20.5%	14.5%	57.5%
2002	841	2,3,4,5	13.9%	0.0%	1.3%	0.7%	0.5%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.2%	0.0%	0.0%	0.0%	10.0%	10.7%	58.3%
2003	1488	2,3,4,5	12.6%	0.0%	0.9%	3.9%	0.9%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%	14.3%	9.2%	57.0%
2004	1782	2,3,4,5	17.6%	0.0%	3.0%	6.2%	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%	0.3%	0.0%	0.0%	0.0%	13.7%	4.1%	48.7%
2005	445	2,3,4,5	11.9%	0.0%	0.0%	8.1%	2.5%	4.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	1.1%	0.0%	0.0%	0.0%	12.4%	15.3%	41.1%
2006	542	2,3,4,5	17.2%	0.0%	0.9%	5.0%	0.0%	2.8%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	15.3%	19.4%	36.5%
2007	260	2,3,4,5	21.9%	0.0%	1.2%	6.9%	6.9%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	7.7%	12.7%	37.3%
2008	182	2,3,4,5	27.5%	0.0%	4.9%	1.6%	2.2%	3.8%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.4%	8.2%	28.0%
2009	228	2,3,4,5	17.1%	0.0%	0.9%	3.5%	2.6%	1.3%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.0%	0.9%	11.4%
1979-2009	561		14.1%	0.3%	1.4%	4.6%	1.2%	3.2%	0.8%	0.0%	0.0%	0.0%	0.3%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	18.8%	8.0%	46.3%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	512		12.1%	0.5%	1.4%	5.3%	0.3%	6.9%	0.9%	0.0%	0.1%	0.1%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.1%	0.0%	17.1%	5.3%	47.4%
1996-1998	516		13.0%	0.2%	0.3%	4.1%	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	19.9%	7.1%	53.6%
1999-2009	599		15.5%	0.2%	1.6%	4.4%	1.7%	1.9%	1.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	19.4%	9.7%	43.7%

Appendix C.22. Percent distribution of Hanford Wild Brights total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	99	2	Fishery Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	119	2,3	Fishery Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	470	2,3,4	9.4%	0.9%	0.4%	5.1%	0.0%	8.9%	3.6%	0.0%	0.0%	0.4%	0.6%	0.0%	0.6%	0.0%	0.9%	0.0%	0.0%	0.0%	21.7%	6.6%	40.9%
1991	625	2,3,4,5	10.6%	0.0%	1.4%	10.4%	0.5%	5.1%	0.0%	0.0%	1.0%	0.2%	0.0%	0.0%	1.1%	0.0%	0.5%	0.0%	0.0%	0.0%	22.2%	4.0%	43.0%
1992	345	2,3,4,5	17.4%	9.2%	1.4%	6.7%	0.0%	16.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	15.7%	1.4%	30.1%
1993	424	2,3,4,5	19.3%	0.0%	2.1%	3.1%	1.2%	6.1%	1.9%	0.0%	0.0%	0.0%	2.1%	0.0%	3.8%	0.0%	0.0%	0.0%	0.9%	0.0%	14.6%	7.3%	37.5%
1994	781	2,3,4,5	17.0%	2.3%	0.0%	5.2%	0.0%	4.7%	0.0%	0.0%	0.0%	0.3%	1.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	5.5%	51.2%
1995	700	2,3,4,5	13.0%	0.0%	4.1%	5.4%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%	7.1%	58.0%
1996	631	2,3,4,5	12.7%	0.0%	0.0%	1.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.1%	7.9%	50.1%
1997	682	2,3,4,5	17.8%	0.9%	1.1%	3.6%	3.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	13.4%	7.3%	51.1%
1998	344	2,3,4,5	14.8%	0.0%	0.0%	9.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.9%	6.7%	51.2%
1999	281	2,3,4,5	13.2%	1.1%	2.1%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.4%	6.4%	53.4%
2000	234	2,3,4,5	20.1%	0.4%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.8%	5.6%	43.6%
2001	385	2,3,4,5	6.0%	1.6%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	15.3%	54.5%
2002	903	2,3,4,5	17.7%	0.0%	1.4%	0.8%	0.6%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.2%	0.0%	0.0%	0.0%	9.5%	11.1%	54.3%
2003	1537	2,3,4,5	13.7%	0.0%	0.9%	4.1%	1.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.3%	0.0%	0.0%	0.0%	14.1%	9.7%	55.2%
2004	1873	2,3,4,5	18.9%	0.0%	3.1%	6.6%	3.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%	0.4%	0.0%	0.0%	0.0%	13.1%	4.2%	46.3%
2005	472	2,3,4,5	13.1%	0.0%	0.0%	8.7%	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	1.1%	0.0%	0.0%	0.0%	11.9%	15.9%	38.8%
2006	572	2,3,4,5	18.9%	0.0%	1.0%	5.2%	0.0%	2.6%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.7%	19.8%	34.6%
2007	290	2,3,4,5	24.8%	0.0%	1.4%	7.2%	8.3%	2.8%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	12.8%	33.4%
2008	212	2,3,4,5	34.4%	0.0%	5.2%	1.9%	2.4%	3.3%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.9%	8.0%	24.1%
2009	241	2,3,4,5	19.5%	0.0%	0.8%	3.7%	2.9%	1.2%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.8%	0.8%	10.8%
1979-2009	598		16.6%	0.8%	1.5%	5.0%	1.4%	3.3%	0.8%	0.0%	0.0%	0.0%	0.3%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	17.8%	8.2%	43.1%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	558		14.4%	2.1%	1.6%	6.0%	0.3%	7.3%	0.9%	0.0%	0.2%	0.1%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.2%	0.0%	15.9%	5.3%	43.5%
1996-1998	546		15.1%	0.3%	0.4%	4.7%	1.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	19.1%	7.3%	50.8%
1999-2009	635		18.2%	0.3%	1.8%	4.6%	2.0%	1.8%	1.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	18.5%	10.0%	40.8%

Appendix C.23. Percent distribution of Hoko Fall Fingerling reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	74	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	248	2,3,4	4 8%	0 8%	0 0%	7 7%	0 0%	10 9%	0 0%	0 0%	1 6%	0 4%	21 4%	0 0%	0 8%	0 0%	0 4%	0 4%	21 4%	0 0%	0 0%	0 0%	29 4%
1990	588	3,4,5	15 8%	1 9%	0 5%	8 0%	0 0%	17 0%	0 0%	0 5%	0 3%	0 7%	4 3%	0 0%	0 5%	0 0%	0 0%	0 7%	14 5%	0 0%	0 2%	0 0%	35 2%
1991	1242	2,4,5,6	15 2%	0 0%	0 0%	5 0%	0 6%	6 9%	0 5%	0 0%	0 4%	1 1%	1 0%	0 0%	0 2%	0 0%	0 1%	1 0%	8 1%	0 0%	0 1%	0 0%	59 8%
1992	572	2,3,5,6	7 7%	1 7%	1 2%	4 4%	0 7%	9 8%	2 1%	0 0%	0 5%	1 2%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 0%	0 2%	0 0%	66 6%
1993	303	2,3,4,6	6 6%	0 0%	2 0%	6 6%	0 0%	14 9%	0 0%	0 0%	0 3%	0 0%	5 3%	0 0%	0 0%	0 0%	0 3%	0 0%	4 3%	0 0%	0 3%	0 0%	59 4%
1994	332	2,3,4,5	13 6%	2 1%	2 4%	14 8%	0 0%	11 4%	2 1%	0 0%	2 1%	0 6%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 9%
1995	748	2,3,4,5,6	12 6%	0 0%	4 1%	6 1%	0 5%	2 9%	0 0%	0 0%	0 8%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	71 8%
1996	639	2,3,4,5,6	10 5%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	85 3%
1997	886	2,3,4,5,6	13 9%	0 0%	0 0%	1 5%	0 6%	1 0%	0 8%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	81 6%
1998	1130	2,3,4,5,6	9 0%	0 0%	0 4%	5 9%	0 0%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 1%
1999	751	2,3,4,5,6	6 4%	0 0%	0 7%	7 2%	1 2%	0 0%	1 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	82 8%
2000	503	2,3,4,5,6	4 4%	0 2%	1 8%	0 0%	0 0%	0 2%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 0%
2001	515	2,3,4,5,6	6 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	90 1%
2002	671	2,3,4,5,6	17 3%	0 0%	0 9%	4 3%	3 0%	1 5%	0 0%	0 0%	2 1%	0 3%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	69 6%
2003	956	2,3,4,5,6	13 8%	0 1%	2 6%	3 0%	0 0%	0 0%	0 5%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	78 2%
2004	1059	2,3,4,5,6	10 9%	0 0%	1 0%	8 3%	1 5%	0 7%	0 8%	0 0%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 4%	0 0%	0 0%	0 0%	71 4%
2005	591	2,3,4,5,6	11 2%	0 2%	1 2%	11 0%	5 2%	0 0%	1 2%	0 0%	4 9%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	63 5%
2006	773	2,3,4,5,6	9 8%	1 3%	2 2%	6 0%	3 4%	0 0%	1 3%	0 0%	0 6%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	74 3%
2007	319	2,3,4,5,6	18 8%	0 3%	4 4%	8 5%	5 6%	0 9%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	1 3%	0 0%	0 0%	58 0%
2008	112	2,3,4,5,6	22 3%	0 0%	7 1%	9 8%	17 0%	0 0%	0 0%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 5%
2009	323	2,3,4,5,6	11 1%	0 0%	0 0%	9 0%	0 9%	0 0%	0 9%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	75 5%
1979-2009	631		11 5%	0 4%	1 8%	6 0%	1 9%	3 7%	0 6%	0 0%	1 5%	0 2%	1 7%	0 0%	0 2%	0 0%	0 2%	0 1%	2 6%	0 0%	0 1%	0 0%	67 3%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	576		10 9%	0 9%	1 5%	7 5%	0 3%	10 5%	0 7%	0 1%	0 9%	0 6%	5 2%	0 0%	0 2%	0 0%	0 1%	0 3%	7 3%	0 0%	0 1%	0 0%	52 9%
1996-1998	885		11 1%	0 0%	1 4%	2 5%	0 2%	0 3%	0 4%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	83 7%
1999-2009	598		12 0%	0 2%	2 2%	6 1%	3 4%	0 3%	0 6%	0 0%	2 4%	0 0%	0 0%	0 0%	0 2%	0 0%	0 2%	0 0%	0 4%	0 0%	0 0%	0 0%	72 1%

Appendix C.24. Percent distribution of Hoko Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	10	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	139	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	352	2,3,4	10 8%	3 4%	0 3%	8 5%	0 0%	13 6%	0 0%	0 0%	1 7%	1 1%	16 2%	0 0%	0 6%	0 0%	0 6%	1 4%	21 0%	0 0%	0 0%	0 0%	20 7%
1990	675	3,4,5	18 2%	3 7%	0 6%	8 6%	0 0%	17 2%	0 0%	0 4%	0 3%	0 9%	3 7%	0 0%	0 6%	0 0%	0 0%	0 6%	14 4%	0 0%	0 1%	0 0%	30 7%
1991	1328	2,4,5,6	18 1%	0 0%	0 1%	5 2%	0 5%	7 1%	0 5%	0 0%	0 4%	1 1%	0 9%	0 0%	0 2%	0 0%	0 1%	0 9%	8 8%	0 0%	0 1%	0 0%	56 0%
1992	658	2,3,5,6	8 4%	8 7%	1 5%	5 3%	0 6%	9 9%	2 0%	0 0%	0 6%	1 1%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 2%	0 0%	57 9%
1993	348	2,3,4,6	11 8%	1 1%	2 3%	7 8%	0 0%	14 9%	0 0%	0 0%	0 6%	0 0%	4 6%	0 0%	0 0%	0 0%	0 6%	0 0%	4 3%	0 0%	0 3%	0 0%	51 7%
1994	384	2,3,4,5	19 8%	5 6%	2 8%	13 5%	0 0%	10 7%	2 0%	0 0%	2 0%	0 5%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 4%
1995	831	2,3,4,5,6	16 2%	0 0%	4 7%	7 8%	0 6%	3 7%	0 0%	0 0%	0 8%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	64 6%
1996	686	2,3,4,5,6	13 7%	0 0%	4 4%	0 7%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	79 4%
1997	921	2,3,4,5,6	16 4%	0 0%	0 0%	1 6%	0 7%	1 2%	0 9%	0 0%	0 0%	0 2%	0 1%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	78 5%
1998	1147	2,3,4,5,6	9 9%	0 0%	0 3%	6 4%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	82 8%
1999	771	2,3,4,5,6	7 8%	0 0%	0 6%	7 8%	1 3%	0 0%	1 4%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	80 7%
2000	520	2,3,4,5,6	6 0%	0 2%	2 9%	0 0%	0 0%	0 2%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 0%
2001	539	2,3,4,5,6	8 3%	0 0%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	86 1%
2002	712	2,3,4,5,6	19 8%	0 0%	1 0%	4 8%	3 5%	1 7%	0 0%	0 0%	2 2%	0 3%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	65 6%
2003	980	2,3,4,5,6	15 0%	0 1%	2 9%	3 3%	0 0%	0 0%	0 6%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 3%
2004	1117	2,3,4,5,6	12 3%	0 0%	1 2%	9 2%	2 1%	0 7%	0 9%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 5%	0 0%	0 0%	0 0%	67 7%
2005	639	2,3,4,5,6	12 8%	0 2%	1 3%	12 1%	6 4%	0 0%	1 3%	0 0%	5 3%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	58 7%
2006	807	2,3,4,5,6	10 9%	2 0%	2 4%	6 4%	3 8%	0 0%	1 4%	0 0%	0 7%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	71 1%
2007	335	2,3,4,5,6	19 7%	0 3%	4 8%	8 7%	6 6%	0 9%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	1 8%	0 0%	0 0%	0 0%	55 2%
2008	130	2,3,4,5,6	23 1%	0 0%	9 2%	10 0%	19 2%	0 0%	0 0%	0 0%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 3%
2009	386	2,3,4,5,6	15 0%	0 0%	0 0%	10 7%	1 4%	0 0%	1 1%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	66 7%
1979-2009	679		14 0%	1 2%	2 2%	6 6%	2 2%	4 0%	0 6%	0 0%	1 7%	0 2%	1 4%	0 0%	0 2%	0 0%	0 2%	0 1%	2 8%	0 0%	0 1%	0 0%	62 5%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	655		14 8%	3 2%	1 8%	8 1%	0 2%	11 0%	0 6%	0 1%	0 9%	0 7%	4 3%	0 0%	0 2%	0 0%	0 2%	0 4%	7 4%	0 0%	0 1%	0 0%	46 0%
1996-1998	918		13 3%	0 0%	1 6%	2 9%	0 2%	0 8%	0 4%	0 0%	0 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	80 3%
1999-2009	629		13 7%	0 2%	2 6%	6 6%	4 0%	0 3%	0 6%	0 0%	2 6%	0 0%	0 0%	0 0%	0 2%	0 0%	0 3%	0 0%	0 6%	0 0%	0 0%	0 0%	68 1%

Appendix C.25. Percent distribution of Kitsumkalum River Summer (North/Central BC) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	5	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	19	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	65	3,4,5	50 8%	0 0%	0 0%	18 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985	184	4,5,6	26 1%	0 0%	1 6%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 6%
1986	213	3,5,6	8 9%	0 0%	0 0%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	65 7%
1987	231	3,4,6	7 4%	0 0%	0 0%	9 1%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	71 4%
1988	161	3,4,5	17 4%	0 6%	1 9%	3 1%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	23 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	46 6%
1989	800	3,4,5,6	10 9%	0 3%	6 8%	5 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	59 1%
1990	606	3,4,5,6	10 7%	0 0%	2 8%	6 8%	1 8%	0 0%	0 0%	0 0%	0 0%	0 3%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 6%	64 9%
1991	294	3,4,5,6	14 6%	0 0%	3 7%	8 8%	6 8%	0 0%	0 0%	0 0%	0 0%	0 7%	16 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 8%	41 8%
1992	669	3,4,5,6	13 9%	0 0%	1 9%	7 0%	5 4%	0 4%	0 0%	0 0%	0 0%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	60 7%
1993	230	3,4,5,6	10 4%	0 9%	2 2%	10 0%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	18 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 5%
1994	126	3,4,5,6	11 1%	0 0%	0 0%	5 6%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	19 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 9%
1995	184	3,4,5,6	12 0%	0 0%	2 7%	7 1%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	28 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	42 4%
1996	505	3,4,5,6	8 5%	0 2%	6 1%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	17 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	63 8%
1997	624	3,4,5,6	10 4%	0 0%	7 5%	0 0%	4 6%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	62 7%
1998	490	3,4,5,6	8 6%	0 0%	3 1%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	81 6%
1999	697	3,4,5,6	13 9%	0 0%	9 2%	0 0%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	64 4%
2000	329	3,4,5,6	8 2%	0 0%	7 9%	0 0%	6 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	67 5%
2001	507	3,4,5,6	10 1%	0 0%	8 9%	0 6%	4 9%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	65 3%
2002	909	3,4,5,6	13 9%	0 2%	5 7%	1 5%	10 2%	0 0%	0 0%	0 0%	0 6%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	63 3%
2003	601	3,4,5,6	14 0%	0 0%	1 7%	5 2%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	70 2%
2004	901	3,4,5,6	8 1%	2 6%	5 4%	0 9%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	73 4%
2005	324	3,4,5,6	14 8%	0 0%	2 5%	2 5%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	67 9%
2006	281	3,4,5,6	12 8%	1 8%	1 8%	2 8%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	64 8%
2007	502	3,4,5,6	11 6%	0 4%	2 8%	1 6%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	73 7%
2008	483	3,4,5,6	6 0%	0 2%	2 1%	2 3%	13 5%	0 0%	0 0%	0 0%	0 0%	0 0%	11 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 8%	53 2%
2009	667	4,5,6	9 7%	2 1%	4 0%	1 0%	8 4%	0 3%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	72 4%
1979-2009	446		13 3%	0 4%	3 5%	4 6%	5 1%	0 0%	0 0%	0 0%	0 0%	0 0%	9 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	60 0%
1979-1984	65		50 8%	0 0%	0 0%	18 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	336		13 0%	0 2%	2 1%	7 6%	3 3%	0 0%	0 0%	0 0%	0 0%	0 1%	14 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	56 0%
1996-1998	540		9 2%	0 1%	5 6%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	69 4%
1999-2009	564		11 2%	0 7%	4 7%	1 7%	7 9%	0 0%	0 0%	0 0%	0 1%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	66 9%

Appendix C.26. Percent distribution of Kitsumkalum River Summer (North/Central BC) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	8	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	27	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	82	3,4,5	56 1%	0 0%	0 0%	19 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	24 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985	195	4,5,6	29 2%	0 0%	1 5%	7 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 7%
1986	216	3,5,6	10 2%	0 0%	0 0%	13 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	64 8%
1987	264	3,4,6	12 5%	0 0%	2 7%	9 8%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	62 5%
1988	202	3,4,5	23 3%	1 5%	5 0%	7 4%	4 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	37 1%
1989	850	3,4,5,6	14 0%	0 7%	6 9%	5 3%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	55 6%
1990	634	3,4,5,6	11 8%	0 0%	3 3%	7 9%	2 1%	0 0%	0 0%	0 0%	0 0%	0 3%	6 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 8%	62 0%
1991	332	3,4,5,6	18 7%	0 0%	4 2%	10 8%	6 6%	0 0%	0 0%	0 0%	0 0%	0 9%	15 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 6%	37 0%
1992	695	3,4,5,6	15 3%	0 0%	2 0%	7 9%	5 6%	0 4%	0 0%	0 0%	0 0%	0 0%	9 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	58 4%
1993	242	3,4,5,6	11 6%	1 7%	2 1%	11 6%	4 5%	0 0%	0 0%	0 0%	0 0%	0 0%	17 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	50 8%
1994	135	3,4,5,6	13 3%	0 0%	0 0%	6 7%	8 1%	0 0%	0 0%	0 0%	0 0%	0 0%	17 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 1%
1995	218	3,4,5,6	13 3%	0 0%	2 8%	9 6%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	31 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	35 8%
1996	546	3,4,5,6	10 3%	0 2%	6 8%	0 2%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	19 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 9%	59 0%
1997	667	3,4,5,6	11 8%	0 0%	8 7%	0 0%	5 8%	0 0%	0 0%	0 0%	0 0%	0 0%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	58 6%
1998	509	3,4,5,6	10 4%	0 0%	3 5%	0 0%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	78 6%
1999	742	3,4,5,6	15 1%	0 0%	10 1%	0 0%	11 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	60 5%
2000	359	3,4,5,6	9 7%	0 0%	10 3%	0 0%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 6%	61 8%
2001	597	3,4,5,6	11 6%	0 0%	9 7%	0 7%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	14 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	55 4%
2002	1012	3,4,5,6	14 9%	0 4%	6 3%	1 7%	12 2%	0 0%	0 0%	0 0%	0 6%	0 0%	5 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	56 8%
2003	634	3,4,5,6	15 6%	0 0%	1 9%	5 8%	6 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	66 6%
2004	963	3,4,5,6	8 5%	3 4%	5 7%	0 9%	10 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	68 6%
2005	345	3,4,5,6	17 1%	0 0%	2 9%	2 6%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	63 8%
2006	300	3,4,5,6	15 0%	2 0%	2 3%	3 0%	6 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	60 7%
2007	535	3,4,5,6	13 5%	0 7%	3 4%	1 7%	9 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	69 2%
2008	548	3,4,5,6	6 9%	0 2%	3 6%	2 6%	17 9%	0 0%	0 0%	0 0%	0 0%	0 0%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 3%	46 9%
2009	698	4,5,6	10 9%	2 7%	4 3%	1 1%	9 5%	0 3%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	69 2%
1979-2009	482		15 4%	0 5%	4 2%	5 3%	6 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	55 5%
1979-1984	82		56 1%	0 0%	0 0%	19 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	24 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	362		15 7%	0 3%	2 8%	9 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 1%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	51 5%
1996-1998	574		10 8%	0 1%	6 3%	0 1%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	65 4%
1999-2009	612		12 6%	0 9%	5 5%	1 8%	9 6%	0 0%	0 0%	0 0%	0 1%	0 0%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	61 8%

Appendix C.27. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	129	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	396	2,3,4	0.8%	0.0%	0.0%	0.0%	0.0%	16.7%	1.3%	0.0%	3.3%	0.5%	7.6%	0.0%	18.7%	1.0%	12.1%	3.0%	50.1%	0.0%	5.6%	0.0%	19.4%
1981	2765	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	31.0%	0.3%	0.0%	1.8%	0.5%	2.5%	0.0%	21.5%	0.0%	8.1%	0.5%	3.4%	0.0%	1.4%	0.3%	28.6%
1982	3176	2,3,4,5	0.0%	0.0%	0.0%	0.3%	0.0%	26.1%	0.5%	0.0%	0.9%	1.8%	0.3%	0.0%	18.6%	0.2%	7.6%	1.9%	1.3%	0.0%	14.1%	0.1%	26.5%
1983	1793	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.1%	34.6%	0.4%	0.0%	1.4%	2.3%	0.8%	0.0%	11.3%	0.0%	4.4%	1.3%	4.2%	0.0%	5.5%	0.0%	33.6%
1984	1438	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	50.9%	0.3%	0.5%	0.8%	3.3%	1.6%	0.0%	5.9%	0.0%	1.3%	0.7%	1.0%	0.0%	9.2%	1.6%	22.9%
1985	995	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	28.0%	0.7%	0.0%	1.1%	0.9%	1.6%	0.0%	15.7%	0.3%	3.8%	1.3%	1.3%	0.0%	2.5%	0.6%	42.1%
1986	1341	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.1%	9.4%	2.7%	0.0%	2.5%	0.0%	8.1%	0.0%	6.9%	0.0%	2.2%	1.4%	3.4%	0.0%	9.8%	5.9%	47.7%
1987	7478	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.0%	26.9%	2.5%	0.0%	0.5%	1.6%	0.2%	0.0%	16.6%	0.5%	4.0%	0.7%	1.5%	0.0%	19.4%	4.0%	21.3%
1988	2511	2,3,4,5	0.3%	0.0%	0.0%	0.3%	0.0%	29.0%	2.4%	0.0%	1.0%	0.6%	0.0%	0.0%	11.5%	0.5%	0.9%	0.3%	0.5%	0.0%	23.6%	1.8%	27.3%
1989	254	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	22.4%	0.0%	2.4%	0.0%	2.0%	0.0%	5.9%	0.8%	49.2%
1990	288	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	19.8%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	16.3%	0.0%	6.9%	0.0%	1.4%	0.0%	0.3%	2.8%	50.3%
1991	441	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	2.0%	0.0%	0.7%	0.2%	2.5%	0.0%	9.3%	0.0%	4.3%	0.2%	1.1%	0.0%	2.0%	9.5%	58.0%
1992	1150	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	16.3%	1.9%	0.0%	0.0%	0.5%	1.0%	0.0%	28.0%	0.0%	5.4%	0.0%	1.9%	0.0%	0.8%	3.7%	40.5%
1993	486	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	18.5%	4.5%	0.0%	0.0%	0.6%	0.0%	0.0%	19.8%	0.0%	2.5%	0.0%	4.1%	0.0%	2.1%	4.3%	43.6%
1994	29	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	27.6%	0.0%	0.0%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.1%
1995	30	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	10.0%	86.7%
1996	62	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	0.0%	85.5%
1997	211	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	17.1%	4.7%	0.0%	2.8%	0.0%	0.0%	0.0%	8.5%	0.0%	2.8%	0.0%	0.0%	0.0%	0.9%	8.5%	54.5%
1998	104	2,3,4,5	0.0%	0.0%	0.0%	0.0%	3.8%	1.0%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	1.9%	21.2%	60.6%
1999	307	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	0.0%	2.3%	0.0%	0.0%	0.0%	3.6%	6.2%	68.7%
2000	222	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	17.6%	12.2%	0.0%	1.8%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	0.9%	0.0%	2.7%	3.6%	59.0%
2001	1064	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	2.3%	0.0%	0.2%	0.0%	0.0%	0.0%	19.2%	0.0%	3.6%	0.1%	0.2%	0.0%	1.4%	4.8%	59.8%
2002	1659	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.0%	10.6%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	20.7%	0.0%	7.8%	0.1%	0.0%	0.0%	8.5%	3.1%	45.7%
2003	1699	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	16.2%	5.7%	0.0%	0.4%	0.0%	0.0%	0.0%	15.2%	0.0%	7.0%	0.0%	0.7%	0.0%	7.2%	2.3%	45.3%
2004	1446	2,3,4,5	0.5%	0.0%	0.0%	0.3%	0.3%	23.0%	8.6%	0.0%	0.5%	0.0%	0.0%	0.0%	8.5%	0.0%	3.7%	0.0%	0.1%	0.0%	16.9%	1.2%	36.4%
2005	552	2,3,4,5	0.0%	0.0%	0.0%	0.4%	0.0%	31.9%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	2.4%	0.0%	0.0%	0.0%	16.8%	0.2%	34.1%
2006	82	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	17.1%	14.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	9.8%	1.2%	54.9%
2007	144	2,3,4,5	0.0%	0.7%	0.0%	0.0%	0.0%	14.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	2.8%	0.0%	0.0%	0.0%	4.9%	2.8%	68.1%
2008	353	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.0%	11.6%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	6.8%	0.0%	0.0%	0.0%	24.6%	3.4%	40.2%
2009	654	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	6.9%	0.0%	1.7%	0.0%	0.0%	0.0%	3.7%	0.0%	5.0%	0.0%	3.1%	0.0%	25.8%	2.9%	44.8%
1979-2009	1104		0.1%	0.0%	0.0%	0.0%	0.1%	17.9%	3.8%	0.0%	1.1%	0.4%	1.0%	0.0%	11.2%	0.1%	3.7%	0.4%	1.4%	0.0%	7.9%	3.6%	47.2%
1979-1984	1914		0.2%	0.0%	0.0%	0.1%	0.0%	31.9%	0.6%	0.1%	1.6%	1.7%	2.6%	0.0%	15.2%	0.2%	6.7%	1.5%	4.0%	0.0%	7.2%	0.4%	26.2%
1985-1995	1364		0.0%	0.0%	0.0%	0.0%	0.0%	18.3%	1.5%	0.0%	1.5%	0.4%	1.6%	0.0%	12.3%	0.1%	2.9%	0.4%	1.6%	0.0%	6.3%	3.9%	48.1%
1996-1998	126		0.0%	0.0%	0.0%	0.0%	1.3%	6.0%	4.8%	0.0%	0.9%	0.0%	0.0%	0.0%	5.9%	0.0%	1.3%	0.0%	0.0%	0.0%	3.1%	9.9%	66.9%
1999-2009	744		0.1%	0.1%	0.0%	0.1%	0.0%	14.5%	7.2%	0.0%	0.4%	0.0%	0.0%	0.0%	8.8%	0.0%	3.8%	0.0%	0.5%	0.0%	11.1%	2.9%	50.6%

Appendix C.28. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	169	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	709	2,3,4	0 4%	0 0%	0 0%	0 1%	0 0%	33 0%	0 7%	0 0%	2 0%	0 8%	5 1%	0 0%	22 6%	0 7%	8 6%	2 7%	9 2%	0 0%	3 2%	0 0%	10 9%
1981	3308	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	33 8%	0 3%	0 0%	1 6%	0 5%	2 3%	0 0%	24 0%	0 0%	7 8%	0 6%	3 6%	0 0%	1 2%	0 3%	23 9%
1982	3679	2,3,4,5	0 0%	0 0%	0 0%	0 3%	0 0%	29 2%	0 5%	0 0%	0 8%	2 0%	0 3%	0 0%	20 1%	0 2%	7 4%	2 1%	1 4%	0 0%	12 8%	0 1%	22 9%
1983	2035	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 1%	36 6%	0 4%	0 0%	1 3%	2 5%	0 8%	0 0%	12 4%	0 0%	4 4%	1 5%	5 3%	0 0%	5 2%	0 0%	29 6%
1984	1602	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	52 6%	0 2%	0 5%	0 8%	3 4%	1 6%	0 0%	6 4%	0 0%	1 2%	0 9%	1 4%	0 0%	8 9%	1 6%	20 6%
1985	1102	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	29 9%	0 7%	0 0%	1 1%	0 9%	1 5%	0 0%	17 8%	0 3%	3 8%	1 4%	1 5%	0 0%	2 5%	0 5%	38 0%
1986	1877	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 2%	8 9%	2 5%	0 0%	1 9%	0 0%	6 9%	0 0%	6 3%	0 0%	1 9%	1 9%	21 4%	0 0%	7 6%	6 4%	34 1%
1987	8965	2,3,4,5	0 0%	0 0%	0 0%	0 2%	0 0%	32 4%	2 3%	0 0%	0 4%	1 9%	0 2%	0 0%	17 5%	0 5%	3 7%	0 6%	1 5%	0 0%	17 5%	3 6%	17 8%
1988	2677	2,3,4,5	0 3%	0 0%	0 0%	0 3%	0 0%	31 3%	2 4%	0 0%	1 0%	0 6%	0 0%	0 0%	11 8%	0 5%	0 9%	0 3%	0 5%	0 0%	22 5%	1 9%	25 6%
1989	277	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	17 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	25 3%	0 0%	2 2%	0 0%	2 5%	0 0%	5 4%	0 7%	45 1%
1990	324	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	22 8%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	18 2%	0 0%	7 1%	0 0%	1 9%	0 0%	0 3%	3 1%	44 8%
1991	504	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	11 9%	2 2%	0 0%	1 0%	0 2%	2 4%	0 0%	10 9%	0 0%	4 8%	0 4%	2 6%	0 0%	2 0%	10 9%	50 8%
1992	1335	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	19 5%	1 8%	0 0%	0 0%	0 6%	0 8%	0 0%	30 3%	0 0%	5 2%	0 0%	2 0%	0 0%	0 7%	4 1%	34 9%
1993	532	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	20 9%	4 3%	0 0%	0 0%	0 8%	0 0%	0 0%	20 9%	0 0%	2 4%	0 0%	4 5%	0 0%	1 9%	4 5%	39 8%
1994	31	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	29 0%	0 0%	0 0%	12 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	58 1%
1995	31	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	12 9%	83 9%
1996	62	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	0 0%	85 5%
1997	233	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	20 6%	4 3%	0 0%	3 0%	0 0%	0 0%	0 0%	9 0%	0 0%	3 0%	0 0%	0 0%	0 0%	0 9%	9 9%	49 4%
1998	115	2,3,4,5	0 0%	0 0%	0 0%	0 0%	7 0%	0 9%	10 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	1 7%	0 0%	0 0%	0 0%	1 7%	22 6%	54 8%
1999	323	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	9 6%	0 0%	0 0%	0 0%	0 0%	0 0%	8 0%	0 0%	3 4%	0 0%	0 0%	0 0%	3 7%	7 7%	65 3%
2000	246	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	18 3%	14 2%	0 0%	2 4%	0 0%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	2 8%	0 0%	2 4%	4 1%	53 3%
2001	1160	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	8 3%	2 7%	0 0%	0 3%	0 0%	0 0%	0 0%	22 2%	0 0%	3 8%	0 1%	0 7%	0 0%	1 4%	5 8%	54 8%
2002	1817	2,3,4,5	0 5%	0 0%	0 0%	0 0%	0 0%	10 7%	3 6%	0 0%	0 0%	0 0%	0 0%	0 0%	23 5%	0 0%	8 1%	0 1%	0 0%	0 0%	8 3%	3 5%	41 7%
2003	1828	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	15 7%	6 9%	0 0%	0 5%	0 0%	0 0%	0 0%	17 2%	0 0%	7 2%	0 0%	0 8%	0 0%	7 1%	2 5%	42 1%
2004	1509	2,3,4,5	0 5%	0 0%	0 0%	0 3%	0 4%	22 6%	9 7%	0 0%	0 5%	0 0%	0 0%	0 0%	9 1%	0 0%	3 8%	0 0%	0 1%	0 0%	16 6%	1 3%	34 9%
2005	572	2,3,4,5	0 0%	0 0%	0 0%	0 3%	0 0%	31 6%	8 4%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	2 4%	0 0%	0 0%	0 0%	16 6%	0 2%	32 9%
2006	86	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	17 4%	17 4%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	9 3%	1 2%	52 3%
2007	152	2,3,4,5	0 0%	0 7%	0 0%	0 0%	0 0%	16 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 2%	0 0%	2 6%	0 0%	0 0%	0 0%	5 3%	3 3%	64 5%
2008	391	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	12 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	0 0%	7 4%	0 0%	0 0%	0 0%	24 0%	4 1%	36 3%
2009	735	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	8 3%	0 0%	2 0%	0 0%	0 0%	0 0%	4 2%	0 0%	5 3%	0 0%	6 3%	0 0%	24 6%	3 1%	39 9%
1979-2009	1274		0 1%	0 0%	0 0%	0 1%	0 3%	19 7%	4 2%	0 0%	1 1%	0 5%	0 8%	0 0%	12 4%	0 1%	3 7%	0 4%	2 3%	0 0%	7 4%	4 0%	42 9%
1979-1984	2267		0 1%	0 0%	0 0%	0 1%	0 0%	37 0%	0 4%	0 1%	1 3%	1 9%	2 0%	0 0%	17 1%	0 2%	5 9%	1 6%	4 2%	0 0%	6 3%	0 4%	21 6%
1985-1995	1605		0 0%	0 0%	0 0%	0 0%	0 0%	20 3%	1 5%	0 0%	1 7%	0 4%	1 4%	0 0%	14 5%	0 1%	2 9%	0 4%	3 5%	0 0%	5 8%	4 4%	43 0%
1996-1998	137		0 0%	0 0%	0 0%	0 0%	2 3%	7 2%	4 9%	0 0%	1 0%	0 0%	0 0%	0 0%	6 0%	0 0%	1 6%	0 0%	0 0%	0 0%	3 0%	10 8%	63 2%
1999-2009	802		0 1%	0 1%	0 0%	0 1%	0 0%	14 7%	8 3%	0 0%	0 5%	0 0%	0 0%	0 0%	9 9%	0 0%	4 0%	0 0%	1 0%	0 0%	10 8%	3 3%	47 1%

Appendix C.29. Percent distribution of Lewis River Wild (Lewis River Wild) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	148	2	Fished	Critera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	282	2,3	Fished	Critera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	1125	2,3,4	6.4%	0.0%	0.0%	3.3%	2.1%	6.0%	0.0%	0.0%	0.0%	1.4%	0.9%	0.0%	2.1%	0.0%	2.6%	0.1%	0.2%	0.0%	4.1%	13.2%	57.7%
1982	924	3,4,5	6.0%	1.3%	0.2%	3.0%	0.0%	10.7%	0.0%	0.4%	0.0%	1.4%	1.5%	0.0%	4.1%	0.9%	7.5%	0.6%	0.8%	0.0%	4.7%	15.3%	41.7%
1983	1020	4,5	Fished	Critera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	348	2,5	Fished	Critera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	307	2,3	Fished	Critera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	635	2,3,4	4.9%	0.0%	0.0%	1.6%	0.0%	6.8%	2.5%	0.0%	0.0%	2.2%	0.9%	0.0%	3.3%	0.0%	0.6%	0.0%	0.0%	0.0%	26.6%	11.5%	39.1%
1987	1099	2,3,4,5	4.1%	0.0%	0.0%	4.7%	0.0%	8.4%	0.9%	0.0%	0.0%	1.2%	0.0%	0.0%	2.7%	0.4%	0.9%	0.0%	0.3%	0.0%	25.3%	5.1%	46.0%
1988	923	2,3,4,5	4.4%	0.0%	0.0%	2.9%	0.0%	8.9%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	4.6%	0.0%	1.1%	0.0%	1.1%	0.0%	23.1%	14.5%	38.8%
1989	1280	2,3,4,5	1.8%	0.2%	0.2%	4.5%	0.5%	5.1%	0.5%	0.0%	0.0%	0.2%	1.5%	0.0%	4.9%	0.2%	0.7%	0.0%	0.0%	0.0%	9.2%	6.6%	63.9%
1990	1138	2,3,4,5	5.4%	0.0%	0.0%	1.7%	0.6%	12.1%	0.8%	0.0%	0.0%	0.4%	0.6%	0.0%	4.0%	0.0%	1.8%	0.0%	1.1%	0.0%	3.3%	2.2%	65.8%
1991	884	2,3,4,5	6.0%	0.1%	0.0%	3.8%	1.1%	5.9%	0.0%	0.0%	0.0%	0.5%	0.7%	0.0%	2.4%	0.0%	1.1%	0.0%	0.0%	0.0%	15.8%	6.0%	56.6%
1992	562	2,3,4,5	1.6%	0.0%	0.0%	3.8%	0.7%	6.2%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	2.9%	0.0%	0.7%	0.0%	0.9%	0.0%	4.5%	21.7%	55.1%
1993	384	2,3,4,5	3.6%	0.0%	1.0%	4.9%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.8%	0.0%	0.5%	0.0%	0.0%	0.0%	6.8%	8.6%	64.3%
1994	250	2,3,4,5	6.4%	0.0%	0.0%	3.2%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	83.2%
1995	528	2,3,4,5	6.6%	0.0%	2.3%	3.2%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.6%	57.6%
1996	324	2,3,4,5	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	4.6%	84.0%
1997	222	3,4,5	12.6%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	81.1%
1998	101	2,4,5	7.9%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	83.2%
1999	53	2,3,5	11.3%	0.0%	0.0%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.2%
2000	67	2,3,4	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.4%	3.0%	77.6%
2001	223	2,3,4,5	4.9%	0.0%	1.3%	0.0%	0.0%	8.5%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	0.0%	2.2%	0.0%	0.0%	0.0%	2.2%	3.1%	69.1%
2002	361	2,3,4,5	11.4%	0.0%	1.7%	0.0%	0.0%	6.1%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	2.2%	0.0%	0.0%	0.0%	4.7%	2.5%	60.9%
2003	459	2,3,4,5	9.4%	0.0%	0.0%	1.5%	1.1%	5.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	0.0%	1.1%	0.0%	0.0%	0.0%	6.8%	5.9%	58.8%
2004	2145	2,3,4,5	6.0%	0.0%	0.5%	3.0%	0.7%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.1%	0.0%	0.0%	0.0%	2.5%	1.9%	82.6%
2005	373	2,3,4,5	3.5%	0.0%	0.0%	12.1%	6.2%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.8%	0.0%	0.0%	0.0%	12.1%	8.8%	50.7%
2006	574	2,3,4,5	13.6%	0.0%	0.5%	6.4%	1.6%	8.5%	0.9%	0.0%	1.7%	0.0%	0.0%	0.0%	1.6%	0.0%	0.5%	0.0%	0.0%	0.0%	5.7%	19.0%	39.9%
2007	194	2,3,4,5	32.0%	0.0%	1.0%	6.2%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	3.1%	0.0%	0.0%	0.0%	3.1%	0.0%	45.9%
2008	172	2,3,4,5	5.2%	0.0%	0.0%	0.0%	2.3%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.6%	0.0%	2.3%	0.0%	0.0%	4.1%	70.9%
2009	160	3,4,5	18.8%	0.0%	0.0%	3.8%	3.8%	6.9%	18.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.6%	0.6%	45.6%
1979-2009	583		7.9%	0.1%	0.3%	3.5%	0.8%	5.4%	1.2%	0.0%	0.1%	0.4%	0.4%	0.0%	2.7%	0.1%	1.1%	0.0%	0.3%	0.0%	7.0%	7.2%	61.5%
1979-1984	1024		6.2%	0.6%	0.1%	3.2%	1.1%	8.2%	0.0%	0.2%	0.0%	1.4%	1.2%	0.0%	3.1%	0.4%	5.0%	0.4%	0.5%	0.0%	4.4%	14.2%	49.7%
1985-1995	767		4.5%	0.0%	0.4%	3.4%	0.3%	6.9%	0.5%	0.0%	0.0%	0.6%	0.8%	0.0%	2.6%	0.1%	0.8%	0.0%	0.3%	0.0%	11.6%	10.1%	57.0%
1996-1998	216		9.4%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	3.3%	82.7%
1999-2009	435		10.8%	0.0%	0.5%	3.9%	1.4%	4.9%	2.6%	0.0%	0.2%	0.0%	0.0%	0.0%	3.2%	0.0%	1.1%	0.0%	0.2%	0.0%	4.9%	4.4%	61.9%

Appendix C.30. Percent distribution of Lewis River Wild (Lewis River Wild) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	193	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	309	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	1221	2,3,4	7 2%	0 0%	0 0%	3 8%	2 1%	7 5%	0 0%	0 0%	0 0%	1 6%	1 0%	0 0%	2 5%	0 0%	2 9%	0 2%	0 2%	0 0%	4 0%	13 8%	53 2%
1982	988	3,4,5	7 2%	1 2%	0 2%	3 5%	0 0%	11 6%	0 0%	0 4%	0 0%	1 6%	1 4%	0 0%	4 3%	0 8%	7 5%	0 6%	0 8%	0 0%	4 6%	15 3%	39 0%
1983	1086	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	369	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	360	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	686	2,3,4	6 1%	0 0%	0 0%	2 2%	0 0%	8 0%	2 6%	0 0%	0 0%	2 2%	1 0%	0 0%	3 8%	0 0%	0 6%	0 0%	0 0%	0 0%	25 7%	11 7%	36 2%
1987	1179	2,3,4,5	5 6%	0 0%	0 0%	5 3%	0 0%	9 4%	0 9%	0 0%	0 0%	1 4%	0 0%	0 0%	2 9%	0 4%	0 9%	0 0%	0 3%	0 0%	24 6%	5 3%	42 8%
1988	1005	2,3,4,5	5 2%	0 0%	0 0%	3 3%	0 0%	10 4%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	5 0%	0 0%	1 1%	0 0%	1 4%	0 0%	22 1%	15 3%	35 6%
1989	1352	2,3,4,5	2 4%	0 7%	0 3%	5 0%	0 4%	5 8%	0 5%	0 0%	0 0%	0 2%	1 6%	0 0%	5 4%	0 3%	0 7%	0 0%	0 0%	0 0%	9 0%	7 1%	60 5%
1990	1215	2,3,4,5	7 6%	0 0%	0 0%	1 9%	0 6%	13 4%	0 8%	0 0%	0 0%	0 5%	0 7%	0 0%	4 2%	0 0%	1 9%	0 0%	1 3%	0 0%	3 2%	2 3%	61 6%
1991	922	2,3,4,5	7 2%	0 2%	0 0%	4 1%	1 2%	6 4%	0 0%	0 0%	0 0%	0 4%	0 7%	0 0%	2 5%	0 0%	1 1%	0 0%	0 0%	0 0%	15 4%	6 6%	54 2%
1992	581	2,3,4,5	1 7%	0 0%	0 0%	4 1%	0 7%	6 7%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	3 1%	0 0%	0 7%	0 0%	1 0%	0 0%	4 5%	23 2%	52 3%
1993	405	2,3,4,5	4 4%	0 0%	1 2%	5 7%	0 0%	8 4%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	6 7%	8 9%	61 0%
1994	265	2,3,4,5	9 1%	0 0%	0 0%	4 9%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	78 5%
1995	560	2,3,4,5	7 7%	0 0%	2 3%	3 6%	0 0%	6 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 5%	54 3%
1996	331	2,3,4,5	9 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	4 8%	82 2%
1997	227	3,4,5	14 1%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	79 3%
1998	101	2,4,5	7 9%	0 0%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	2 0%	83 2%
1999	62	2,3,5	17 7%	0 0%	1 6%	8 1%	0 0%	1 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 7%
2000	73	2,3,4	6 8%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	15 1%	2 7%	71 2%
2001	238	2,3,4,5	5 9%	0 0%	1 7%	0 0%	0 0%	8 8%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	2 9%	0 0%	0 0%	0 0%	2 1%	3 4%	64 7%
2002	393	2,3,4,5	14 5%	0 0%	1 8%	0 0%	0 0%	5 9%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	6 6%	0 0%	2 3%	0 0%	0 0%	0 0%	4 6%	2 5%	56 0%
2003	478	2,3,4,5	10 5%	0 0%	0 0%	1 7%	1 3%	5 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	10 3%	0 0%	1 0%	0 0%	0 0%	0 0%	6 5%	6 1%	56 5%
2004	2183	2,3,4,5	6 6%	0 0%	0 5%	3 3%	1 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 1%	0 0%	0 0%	0 0%	2 5%	2 0%	81 1%
2005	396	2,3,4,5	4 0%	0 0%	0 0%	12 9%	7 8%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 8%	0 0%	0 0%	0 0%	11 6%	9 1%	47 7%
2006	598	2,3,4,5	14 4%	0 0%	0 5%	6 5%	1 8%	8 4%	1 0%	0 0%	1 8%	0 0%	0 0%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	5 5%	19 7%	38 3%
2007	214	2,3,4,5	36 4%	0 0%	0 9%	6 5%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 0%	0 0%	2 8%	0 0%	0 0%	0 0%	2 8%	0 0%	41 6%
2008	177	2,3,4,5	6 2%	0 0%	0 0%	0 0%	2 3%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	0 6%	0 0%	2 8%	0 0%	0 0%	4 5%	68 9%
2009	169	3,4,5	20 1%	0 0%	0 0%	3 6%	4 1%	6 5%	20 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 6%	0 6%	43 2%
1979-2009	616		9 4%	0 1%	0 5%	3 8%	0 9%	5 9%	1 5%	0 0%	0 1%	0 4%	0 4%	0 0%	3 1%	0 1%	1 2%	0 0%	0 3%	0 0%	6 7%	7 5%	58 1%
1979-1984	1104		7 2%	0 6%	0 1%	3 7%	1 1%	9 6%	0 0%	0 2%	0 0%	1 6%	1 2%	0 0%	3 4%	0 4%	5 2%	0 4%	0 5%	0 0%	4 3%	14 5%	46 1%
1985-1995	817		5 7%	0 1%	0 4%	4 0%	0 3%	7 8%	0 5%	0 0%	0 0%	0 7%	0 8%	0 0%	2 9%	0 1%	0 8%	0 0%	0 4%	0 0%	11 3%	10 6%	53 7%
1996-1998	220		10 4%	0 0%	0 0%	2 7%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	3 4%	81 5%
1999-2009	453		13 0%	0 0%	0 8%	3 9%	1 7%	5 0%	3 1%	0 0%	0 2%	0 0%	0 0%	0 0%	3 9%	0 0%	1 1%	0 0%	0 3%	0 0%	4 7%	4 6%	57 9%

Appendix C.31. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	214	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	759	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	797	2,3,4	2 8%	0 0%	0 0%	3 3%	0 0%	18 7%	0 0%	0 0%	0 0%	0 6%	1 0%	0 0%	10 5%	0 0%	0 3%	0 0%	0 0%	0 0%	29 7%	3 6%	29 5%
1989	683	2,3,4,5	2 8%	0 0%	0 0%	6 3%	0 0%	16 0%	0 9%	0 0%	0 0%	0 0%	1 6%	0 0%	12 3%	0 0%	3 4%	0 0%	0 0%	0 0%	27 2%	3 1%	26 5%
1990	622	2,3,4,5	5 3%	0 0%	0 0%	3 5%	0 0%	16 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	9 6%	0 0%	3 4%	0 0%	1 4%	0 0%	26 4%	1 0%	32 8%
1991	225	2,3,4,5	2 7%	0 0%	1 8%	4 9%	0 0%	8 9%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	4 0%	0 0%	1 3%	0 0%	0 0%	0 0%	12 9%	1 3%	60 9%
1992	169	2,3,4,5	1 2%	1 2%	0 0%	3 6%	0 0%	10 7%	3 0%	0 0%	0 0%	0 0%	2 4%	0 0%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	8 3%	1 8%	62 1%
1993	252	3,4,5	3 6%	0 0%	0 0%	4 4%	0 0%	10 3%	0 0%	0 0%	0 0%	0 8%	2 0%	0 0%	7 9%	0 0%	1 6%	0 0%	0 0%	0 0%	13 9%	0 0%	55 6%
1994	628	2,4,5	5 6%	0 5%	1 3%	5 6%	0 0%	6 5%	0 0%	0 0%	0 6%	0 6%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 6%	0 5%	61 6%
1995	806	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	583	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	78	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	154	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	120	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	704	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	1335	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	1346	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	398	2,3,5	6 8%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	1 3%	0 0%	0 0%	0 0%	11 3%	3 5%	71 1%
2004	787	2,3,4	2 4%	0 0%	0 0%	1 4%	1 4%	1 7%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	1 8%	0 0%	0 0%	0 0%	4 6%	2 5%	77 8%
2005	436	2,3,4,5	3 4%	0 2%	0 0%	3 2%	1 4%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	0 0%	2 5%	0 0%	1 6%	0 0%	13 1%	0 9%	66 1%
2006	349	2,3,4,5	4 3%	0 0%	0 0%	0 6%	2 9%	0 9%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	1 4%	0 0%	0 0%	0 0%	7 7%	1 1%	73 4%
2007	2374	2,3,4,5	0 1%	0 0%	0 0%	0 2%	0 3%	1 2%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 6%	0 0%	0 1%	0 0%	2 5%	2 1%	92 6%
2008	4630	2,3,4,5	0 3%	0 0%	0 0%	0 2%	0 4%	5 3%	2 2%	0 0%	0 1%	0 0%	0 0%	0 0%	3 4%	0 0%	2 0%	0 0%	0 1%	0 0%	7 5%	1 9%	76 6%
2009	1641	2,3,4,5	3 8%	0 1%	0 4%	3 0%	0 9%	3 5%	5 6%	0 0%	0 2%	0 0%	0 0%	0 0%	4 6%	0 0%	2 6%	0 0%	0 2%	0 0%	33 7%	4 1%	37 2%
1979-2009	999		3 2%	0 1%	0 2%	2 9%	0 5%	7 5%	1 0%	0 0%	0 1%	0 1%	0 8%	0 0%	5 6%	0 0%	1 6%	0 0%	0 2%	0 0%	15 2%	2 0%	58 8%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	482		3 4%	0 2%	0 4%	4 5%	0 0%	12 4%	0 5%	0 0%	0 1%	0 3%	1 6%	0 0%	7 2%	0 0%	1 4%	0 0%	0 2%	0 0%	19 0%	1 6%	47 0%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	1516		3 0%	0 0%	0 1%	1 2%	1 0%	2 5%	1 5%	0 0%	0 1%	0 0%	0 0%	0 0%	4 1%	0 0%	1 8%	0 0%	0 3%	0 0%	11 5%	2 3%	70 7%

Appendix C.32. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	281	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	843	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	867	2,3,4	3 1%	0 0%	0 1%	3 8%	0 0%	20 8%	0 0%	0 0%	0 0%	0 6%	0 9%	0 0%	11 5%	0 0%	0 5%	0 0%	0 0%	0 0%	28 0%	3 6%	27 1%
1989	756	2,3,4,5	3 8%	0 0%	0 0%	6 9%	0 0%	18 0%	0 9%	0 0%	0 0%	0 0%	1 5%	0 0%	13 0%	0 0%	3 3%	0 0%	0 0%	0 0%	25 5%	3 2%	23 9%
1990	651	2,3,4,5	5 5%	0 0%	0 0%	3 7%	0 0%	17 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	10 0%	0 0%	3 5%	0 0%	1 7%	0 0%	25 7%	1 1%	31 3%
1991	239	2,3,4,5	3 3%	0 0%	2 5%	5 4%	0 0%	10 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	4 6%	0 0%	1 7%	0 0%	0 0%	0 0%	12 6%	1 3%	57 3%
1992	199	2,3,4,5	1 5%	9 0%	0 0%	4 0%	0 0%	11 6%	3 0%	0 0%	0 0%	0 0%	2 5%	0 0%	6 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	2 0%	52 8%
1993	276	3,4,5	5 4%	0 7%	0 4%	5 4%	0 0%	11 6%	0 0%	0 0%	0 0%	1 1%	1 8%	0 0%	8 0%	0 0%	1 4%	0 0%	0 0%	0 0%	13 4%	0 0%	50 7%
1994	659	2,4,5	6 4%	1 4%	1 2%	5 5%	0 0%	6 8%	0 0%	0 0%	0 6%	0 6%	3 2%	0 0%	0 5%	0 0%	0 0%	0 0%	0 2%	0 0%	14 4%	0 6%	58 7%
1995	827	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	594	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	81	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	157	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	123	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	766	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	1394	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	1375	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	423	2,3,5	7 8%	0 0%	0 0%	0 5%	0 2%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	1 4%	0 0%	0 2%	0 0%	11 3%	4 5%	66 9%
2004	813	2,3,4	2 7%	0 0%	0 0%	1 6%	2 0%	1 6%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	0 0%	2 0%	0 0%	0 2%	0 0%	4 9%	2 8%	75 3%
2005	457	2,3,4,5	3 9%	0 2%	0 0%	3 5%	2 0%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 2%	0 0%	2 6%	0 0%	2 4%	0 0%	13 1%	1 1%	63 0%
2006	364	2,3,4,5	5 2%	0 0%	0 0%	0 5%	3 6%	0 8%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	7 1%	0 0%	1 6%	0 0%	0 0%	0 0%	7 7%	1 4%	70 3%
2007	2465	2,3,4,5	0 1%	0 0%	0 0%	0 3%	0 6%	1 8%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 9%	0 0%	0 9%	0 0%	2 8%	3 0%	89 2%
2008	4776	2,3,4,5	0 6%	0 0%	0 0%	0 3%	0 4%	5 3%	2 4%	0 0%	0 2%	0 0%	0 0%	0 0%	4 1%	0 0%	2 1%	0 0%	0 1%	0 0%	7 8%	2 4%	74 2%
2009	1770	2,3,4,5	4 2%	0 1%	0 6%	3 2%	1 1%	3 6%	6 5%	0 0%	0 3%	0 0%	0 0%	0 0%	5 0%	0 0%	2 9%	0 0%	0 6%	0 0%	32 9%	4 6%	34 5%
1979-2009	1051		3 8%	0 8%	0 3%	3 2%	0 7%	8 1%	1 1%	0 0%	0 1%	0 2%	0 8%	0 0%	6 1%	0 0%	1 7%	0 0%	0 5%	0 0%	14 8%	2 2%	55 4%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	521		4 2%	1 6%	0 6%	5 0%	0 0%	13 7%	0 6%	0 0%	0 1%	0 3%	1 7%	0 0%	7 6%	0 0%	1 5%	0 0%	0 3%	0 0%	18 2%	1 7%	43 1%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	1581		3 5%	0 0%	0 1%	1 4%	1 4%	2 6%	1 7%	0 0%	0 1%	0 0%	0 0%	0 0%	4 6%	0 0%	1 9%	0 0%	0 6%	0 0%	11 5%	2 8%	67 6%

Appendix C.33. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	251	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	1322	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	1784	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	515	2,4,5	4.1%	0.0%	0.0%	1.9%	2.7%	1.7%	0.8%	1.0%	36.3%	12.8%	20.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%	0.0%	5.6%	11.7%
1985	54	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	24	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	8	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	227	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	742	2,3,4	0.3%	0.3%	0.0%	0.8%	2.2%	0.5%	0.9%	6.1%	34.0%	0.8%	11.5%	0.0%	0.8%	0.0%	0.0%	2.8%	0.7%	0.0%	0.3%	7.8%	30.3%
1992	1600	2,3,4,5	0.1%	0.0%	0.0%	0.8%	3.2%	5.4%	0.3%	7.3%	30.4%	1.3%	7.2%	0.0%	0.4%	0.0%	0.1%	0.8%	0.6%	0.0%	0.0%	1.2%	40.8%
1993	1331	2,3,4,5	0.1%	0.2%	0.0%	1.5%	1.9%	2.5%	0.5%	4.8%	48.9%	1.1%	5.2%	0.0%	0.6%	0.0%	0.0%	0.2%	1.1%	0.0%	0.0%	2.9%	28.6%
1994	397	2,3,4,5	0.5%	0.0%	0.0%	0.8%	2.3%	4.0%	1.3%	0.8%	24.7%	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.8%	55.4%
1995	1199	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.0%	1.2%	0.9%	0.0%	15.4%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.3%	4.1%	74.1%
1996	723	2,3,4,5	0.0%	0.7%	0.0%	0.0%	1.0%	0.0%	0.6%	0.0%	54.8%	0.0%	2.4%	0.0%	0.3%	0.0%	0.0%	0.6%	2.6%	0.0%	4.6%	5.1%	27.5%
1997	223	2,3,4,5	6.3%	0.0%	0.0%	3.6%	0.0%	1.3%	0.4%	0.0%	31.4%	2.2%	1.3%	0.0%	0.0%	1.3%	0.0%	4.0%	3.1%	0.0%	0.0%	3.1%	41.7%
1998	189	2,3,4,5	1.1%	3.7%	0.0%	5.3%	3.2%	0.5%	0.0%	0.0%	18.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	14.3%	51.9%
1999	251	2,3,4,5	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	2.4%	0.0%	23.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	2.0%	0.0%	1.2%	2.8%	62.9%
2000	162	3,4,5	1.2%	0.0%	0.0%	0.0%	0.0%	3.1%	6.2%	0.0%	23.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	17.9%	42.6%
2001	290	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	3.4%	0.0%	83.8%
2002	767	2,3,5	0.3%	0.1%	0.0%	0.0%	0.9%	1.2%	0.0%	0.0%	33.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.3%	3.0%	0.0%	4.8%	0.3%	53.7%
2003	756	2,3,4	0.5%	0.3%	0.0%	0.0%	5.6%	3.8%	0.7%	0.0%	15.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	1.6%	0.0%	1.9%	0.3%	68.0%
2004	805	2,3,4,5	1.2%	0.0%	0.0%	0.6%	6.3%	5.2%	2.0%	0.0%	8.6%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.5%	2.1%	0.0%	6.1%	1.2%	64.2%
2005	494	3,4,5	0.6%	0.0%	0.6%	1.6%	9.1%	6.5%	1.6%	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.8%	0.0%	20.0%	0.0%	50.2%
2006	1221	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.9%	0.0%	4.8%	0.0%	92.1%
2007	992	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	257	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	6	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	686		1.0%	0.3%	0.0%	1.0%	2.5%	2.3%	1.1%	1.2%	24.3%	1.1%	3.5%	0.0%	0.2%	0.1%	0.0%	1.4%	1.3%	0.0%	3.2%	4.0%	51.7%
1979-1984	515		4.1%	0.0%	0.0%	1.9%	2.7%	1.7%	0.8%	1.0%	36.3%	12.8%	20.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%	0.0%	5.6%	11.7%
1985-1995	1054		0.2%	0.1%	0.0%	0.8%	2.1%	2.7%	0.8%	3.8%	30.7%	0.6%	6.8%	0.0%	0.4%	0.0%	0.0%	0.8%	0.9%	0.0%	0.1%	3.3%	45.9%
1996-1998	378		2.4%	1.5%	0.0%	3.0%	1.4%	0.6%	0.3%	0.0%	34.7%	0.7%	1.6%	0.0%	0.1%	0.4%	0.0%	1.5%	1.9%	0.0%	1.9%	7.5%	40.4%
1999-2009	593		0.5%	0.0%	0.1%	0.3%	3.0%	2.6%	1.7%	0.0%	14.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.9%	1.3%	0.0%	6.0%	2.8%	64.7%

Appendix C.34. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Trdl	Net	Sport	Trdl	Sport	Trdl	Sport	Trdl	Sport	Trdl	Net	Sport	Trdl	Net	Sport	Net	Sport	Trdl	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	308	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	1607	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	1894	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	539	2,4,5	4.3%	0.0%	0.0%	1.9%	2.8%	1.7%	0.7%	1.1%	37.2%	12.8%	19.1%	0.0%	0.0%	0.0%	0.0%	0.4%	1.1%	0.0%	0.0%	5.8%	11.1%
1985	58	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	32	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	20	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	314	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	978	2,3,4	0.2%	0.4%	0.0%	0.9%	2.6%	2.1%	0.8%	8.4%	37.7%	1.2%	9.9%	0.0%	0.8%	0.0%	0.0%	3.3%	1.0%	0.0%	0.2%	7.4%	23.0%
1992	1942	2,3,4,5	0.2%	0.0%	0.0%	1.0%	3.4%	6.1%	0.3%	9.8%	33.7%	1.5%	6.6%	0.0%	0.5%	0.0%	0.1%	0.9%	0.9%	0.0%	0.0%	1.3%	33.6%
1993	1597	2,3,4,5	0.1%	0.3%	0.0%	1.8%	1.8%	2.8%	0.5%	6.3%	52.1%	1.4%	4.5%	0.0%	0.6%	0.0%	0.0%	0.2%	1.0%	0.0%	0.0%	2.9%	23.9%
1994	448	2,3,4,5	0.7%	0.0%	0.0%	0.9%	2.7%	4.5%	1.3%	0.9%	28.6%	0.0%	8.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.9%	49.1%
1995	1342	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.4%	1.8%	1.0%	0.0%	18.6%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.3%	5.1%	68.2%
1996	883	2,3,4,5	0.0%	1.5%	0.0%	0.0%	0.8%	0.3%	0.5%	0.0%	58.4%	0.0%	2.5%	0.0%	0.2%	0.0%	0.0%	0.6%	3.3%	0.0%	4.0%	5.4%	22.5%
1997	264	2,3,4,5	6.8%	0.0%	0.0%	4.2%	0.0%	1.5%	0.4%	0.0%	33.3%	2.3%	2.3%	0.0%	0.0%	1.5%	0.0%	4.9%	4.2%	0.0%	0.0%	3.4%	35.2%
1998	227	2,3,4,5	1.3%	6.2%	0.0%	6.2%	4.4%	0.4%	0.0%	0.0%	20.7%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	15.4%	43.2%
1999	275	2,3,4,5	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	2.2%	0.0%	26.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	3.3%	0.0%	1.1%	3.3%	57.5%
2000	175	3,4,5	1.1%	0.0%	0.0%	0.0%	0.0%	2.9%	6.3%	0.0%	25.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	20.0%	39.4%
2001	401	2,4,5	0.2%	0.0%	0.0%	0.0%	0.7%	1.2%	0.0%	0.0%	17.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	10.7%	0.0%	3.0%	0.0%	60.6%
2002	890	2,3,5	0.4%	0.1%	0.0%	0.0%	1.9%	1.3%	0.0%	0.0%	35.5%	0.0%	2.7%	0.0%	0.1%	0.0%	0.0%	2.7%	4.0%	0.0%	4.5%	0.3%	46.3%
2003	835	2,3,4	0.6%	0.4%	0.1%	0.2%	7.3%	4.0%	0.8%	0.0%	17.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	2.0%	3.0%	0.0%	2.2%	0.4%	61.6%
2004	865	2,3,4,5	1.4%	0.0%	0.0%	0.7%	8.4%	5.1%	2.2%	0.0%	9.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.5%	2.8%	0.0%	6.0%	1.4%	59.8%
2005	517	3,4,5	0.6%	0.0%	0.6%	1.5%	10.8%	6.2%	1.7%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	1.0%	0.0%	19.9%	0.0%	48.0%
2006	1336	2,4,5	0.4%	0.0%	0.0%	0.1%	0.7%	0.5%	0.6%	0.0%	5.5%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.7%	1.9%	0.0%	5.0%	0.4%	84.2%
2007	1053	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	261	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	6	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	795		1.1%	0.5%	0.0%	1.1%	3.1%	2.5%	1.1%	1.6%	27.4%	1.1%	3.6%	0.0%	0.2%	0.1%	0.0%	1.7%	2.5%	0.0%	3.1%	4.3%	46.0%
1979-1984	539		4.3%	0.0%	0.0%	1.9%	2.8%	1.7%	0.7%	1.1%	37.3%	12.8%	19.1%	0.0%	0.0%	0.0%	0.0%	0.4%	1.1%	0.0%	0.0%	5.8%	11.1%
1985-1995	1261		0.2%	0.1%	0.0%	0.9%	2.4%	3.5%	0.6%	5.1%	34.2%	0.8%	6.6%	0.0%	0.4%	0.0%	0.0%	0.9%	1.4%	0.0%	0.1%	3.5%	39.2%
1996-1998	458		2.7%	2.5%	0.0%	3.4%	1.7%	0.8%	0.3%	0.0%	37.5%	0.8%	2.0%	0.0%	0.1%	0.5%	0.0%	1.8%	2.5%	0.0%	1.6%	8.1%	33.6%
1999-2009	662		0.6%	0.1%	0.1%	0.3%	4.1%	2.7%	1.7%	0.0%	18.1%	0.0%	0.3%	0.0%	0.2%	0.0%	0.0%	2.3%	3.7%	0.0%	5.9%	3.2%	57.7%

Appendix C.35. Percent distribution of Nicola River Spring (Fraser Early) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	99	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	1707	2,3,4	0.0%	0.0%	0.0%	0.2%	0.0%	3.6%	0.5%	0.0%	3.7%	0.0%	0.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	37.2%	53.5%
1995	1790	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.7%	1.1%	0.5%	0.0%	2.6%	0.0%	1.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	3.6%	89.1%
1996	69	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	81.2%
1997	202	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	6.4%	78.2%
1998	973	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	1.0%	0.0%	19.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	71.5%
1999	2967	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	24.2%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	73.0%
2000	2158	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	3.2%	0.0%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	63.7%
2001	2164	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	3.5%	0.0%	7.9%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	83.1%
2002	2110	2,3,4,5	0.0%	0.0%	0.0%	1.2%	0.3%	0.8%	0.0%	0.0%	1.1%	0.0%	3.8%	0.0%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	2.6%	89.4%
2003	2153	2,3,4,5	0.1%	0.0%	0.0%	1.8%	0.0%	0.7%	0.4%	0.0%	1.9%	0.0%	18.9%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	70.5%
2004	436	2,3,4,5	0.0%	0.0%	0.0%	1.8%	0.0%	1.8%	0.0%	0.0%	3.4%	0.0%	23.9%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.1%
2005	457	2,3,4,5	0.0%	0.0%	0.0%	0.9%	0.0%	3.3%	0.0%	0.0%	5.3%	0.0%	25.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	52.5%
2006	442	2,3,4,5	0.0%	0.0%	0.0%	1.4%	0.0%	1.6%	0.0%	0.0%	2.5%	0.0%	17.4%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	67.9%
2007	134	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	22.4%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.1%	46.3%
2008	712	2,3,4,5	0.0%	0.0%	0.0%	0.8%	0.6%	0.0%	0.0%	0.0%	2.8%	0.0%	24.0%	0.0%	1.5%	0.0%	0.3%	0.0%	0.0%	0.0%	0.4%	2.9%	66.6%
2009	282	3,4,5	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	7.8%	0.0%	21.3%	0.0%	2.8%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	19.5%	47.2%
1979-2009	1172		0.0%	0.0%	0.0%	0.5%	0.3%	1.2%	0.1%	0.0%	2.8%	0.0%	16.3%	0.0%	0.7%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	8.7%	68.9%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	1748		0.0%	0.0%	0.0%	0.2%	0.4%	2.3%	0.5%	0.0%	3.2%	0.0%	1.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	20.4%	71.3%
1996-1998	415		0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	2.3%	0.0%	13.9%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	4.4%	77.0%
1999-2009	1274		0.0%	0.0%	0.0%	0.8%	0.2%	1.4%	0.0%	0.0%	2.9%	0.0%	19.7%	0.0%	0.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	7.7%	66.2%

Appendix C.36. Percent distribution of Nicola River Spring (Fraser Early) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	10	2	Pooled	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	116	2,3	Pooled	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	1762	2,3,4	0.0%	0.0%	0.0%	0.2%	0.0%	3.7%	0.5%	0.0%	4.0%	0.0%	0.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.5%	51.8%
1995	1836	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.8%	1.3%	0.5%	0.0%	2.8%	0.0%	3.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	3.7%	86.9%
1996	75	2,3,4,5	0.0%	0.0%	0.0%	4.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	74.7%
1997	266	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	18.4%	0.0%	0.0%	0.0%	0.0%	0.0%	10.9%	0.0%	0.0%	5.3%	59.4%
1998	1028	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	1.2%	0.0%	22.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	67.7%
1999	2977	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	24.2%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	72.8%
2000	2263	2,3,4,5	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	3.5%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	60.7%
2001	2188	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.0%	4.1%	0.0%	7.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	82.2%
2002	2128	2,3,4,5	0.0%	0.0%	0.0%	1.4%	0.3%	0.8%	0.0%	0.0%	1.3%	0.0%	3.9%	0.0%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	2.7%	88.6%
2003	2174	2,3,4,5	0.1%	0.0%	0.0%	1.9%	0.0%	0.8%	0.5%	0.0%	2.1%	0.0%	18.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	69.8%
2004	444	2,3,4,5	0.0%	0.0%	0.0%	2.3%	0.0%	2.0%	0.0%	0.0%	4.1%	0.0%	23.6%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.9%
2005	466	2,3,4,5	0.0%	0.0%	0.0%	1.1%	0.0%	3.2%	0.0%	0.0%	6.0%	0.0%	24.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	51.5%
2006	449	2,3,4,5	0.0%	0.0%	0.0%	1.6%	0.0%	1.8%	0.0%	0.0%	2.9%	0.0%	17.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	66.8%
2007	136	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%	22.1%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.3%	45.6%
2008	724	2,3,4,5	0.0%	0.0%	0.0%	1.0%	0.8%	0.0%	0.0%	0.0%	3.5%	0.0%	23.6%	0.0%	1.9%	0.0%	0.3%	0.0%	0.0%	0.0%	0.4%	3.0%	65.5%
2009	292	3,4,5	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	8.2%	0.0%	21.6%	0.0%	2.7%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	20.2%	45.5%
1979-2009	1200		0.0%	0.0%	0.0%	0.9%	0.3%	1.4%	0.1%	0.0%	3.1%	0.0%	17.7%	0.0%	0.7%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	9.0%	66.0%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	1799		0.0%	0.0%	0.0%	0.2%	0.4%	2.5%	0.5%	0.0%	3.4%	0.0%	2.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	21.1%	69.3%
1996-1998	456		0.0%	0.0%	0.0%	1.3%	0.5%	0.4%	0.0%	0.0%	2.4%	0.0%	20.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	0.0%	4.1%	67.3%
1999-2009	1295		0.0%	0.0%	0.0%	0.9%	0.3%	1.4%	0.0%	0.0%	3.2%	0.0%	19.8%	0.0%	1.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	8.1%	65.1%

Appendix C.37. Percent distribution of Nisqually Fall Fingerling reported catch among fisheries and escapement.

			AABM							ISBM													
Catch Year	Estimated # of CWTs	Ages Present	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	10	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	77	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	197	2,3,4	0.0%	0.0%	0.0%	2.5%	0.0%	14.7%	0.0%	2.5%	10.2%	0.0%	6.1%	0.0%	4.6%	0.0%	0.0%	10.2%	46.7%	0.0%	1.0%	0.0%	1.5%
1984	205	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	31.2%	0.0%	0.0%	1.5%	0.0%	2.4%	0.0%	1.5%	0.0%	0.0%	15.6%	21.0%	0.0%	21.0%	0.0%	5.9%
1985	66	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	30.3%	3.0%	0.0%	0.0%	0.0%	6.1%	0.0%	7.6%	0.0%	0.0%	21.2%	16.7%	0.0%	10.6%	0.0%	4.5%
1986	114	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.9%	0.0%	0.0%	13.2%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	12.3%	14.9%	0.0%	23.7%	0.0%	19.3%
1987	153	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	1.3%	11.8%	2.0%	2.0%	0.0%	5.2%	0.0%	0.0%	3.9%	15.7%	0.0%	32.7%	2.6%	12.4%
1988	277	2,3,4,5	0.0%	0.0%	0.0%	0.7%	2.2%	5.4%	0.0%	4.0%	13.7%	2.2%	5.4%	0.0%	8.7%	0.0%	0.0%	7.2%	10.5%	0.0%	10.1%	0.0%	30.0%
1989	1035	2,3,4,5	0.0%	0.0%	0.0%	0.3%	0.0%	4.4%	6.3%	0.0%	2.5%	0.0%	4.3%	0.0%	13.3%	2.1%	0.4%	12.4%	17.5%	0.0%	28.1%	0.4%	8.0%
1990	1290	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	22.6%	5.8%	0.0%	3.1%	0.2%	0.2%	0.0%	10.2%	0.0%	0.1%	2.1%	11.7%	0.0%	35.8%	0.0%	8.2%
1991	243	2,3,4,5	0.0%	0.0%	0.0%	2.1%	0.0%	8.2%	2.1%	0.0%	3.3%	0.0%	2.5%	0.0%	16.5%	0.0%	0.8%	6.6%	23.5%	0.0%	16.5%	0.0%	18.1%
1992	384	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.8%	7.6%	4.2%	0.0%	2.9%	0.0%	2.9%	0.0%	7.6%	0.0%	0.0%	10.2%	16.7%	0.0%	8.1%	0.0%	39.3%
1993	594	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	1.9%	0.3%	3.5%	0.0%	3.2%	0.0%	2.9%	0.0%	0.7%	3.4%	18.4%	0.0%	19.0%	0.0%	34.3%
1994	1002	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.5%	0.0%	2.4%	0.0%	2.5%	0.0%	0.8%	0.0%	0.0%	5.2%	19.9%	0.0%	17.1%	0.4%	46.7%
1995	1736	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.4%	5.4%	3.1%	0.0%	1.7%	0.0%	0.4%	0.0%	2.6%	0.0%	0.0%	1.5%	24.4%	0.0%	30.8%	0.0%	29.6%
1996	962	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	3.3%	0.0%	0.8%	0.0%	1.7%	0.0%	0.0%	1.6%	21.3%	0.0%	40.5%	0.0%	29.4%
1997	626	2,3,4,5	0.0%	0.3%	0.0%	0.0%	0.5%	2.7%	5.6%	0.0%	0.6%	0.0%	0.2%	0.0%	0.8%	0.0%	1.0%	0.8%	21.9%	0.0%	17.9%	1.3%	46.5%
1998	1097	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.4%	0.5%	0.7%	0.0%	1.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.5%	11.3%	0.0%	35.9%	0.7%	47.9%
1999	1474	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	2.7%	0.0%	2.9%	0.0%	0.0%	0.0%	2.8%	0.0%	0.3%	1.3%	18.9%	0.0%	42.7%	0.0%	27.8%
2000	579	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	3.1%	0.0%	2.9%	0.0%	0.0%	0.0%	1.7%	0.0%	1.6%	2.6%	15.7%	0.0%	43.2%	0.0%	14.0%
2001	965	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.0%	3.2%	2.9%	0.0%	1.3%	0.0%	0.0%	0.0%	4.2%	0.0%	0.4%	0.4%	15.4%	0.0%	29.2%	0.0%	42.6%
2002	1365	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	3.4%	0.0%	0.8%	0.0%	0.0%	0.0%	3.4%	0.0%	0.6%	0.6%	7.8%	0.0%	41.2%	3.2%	32.0%
2003	1587	2,3,4,5	0.1%	0.0%	0.0%	0.0%	0.6%	5.5%	1.6%	0.0%	1.1%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.4%	11.2%	0.0%	43.5%	1.8%	29.9%
2004	1629	2,3,4,5	0.0%	0.1%	0.0%	0.0%	0.0%	5.9%	1.1%	0.0%	1.2%	0.0%	0.0%	0.0%	6.8%	0.0%	0.6%	0.6%	8.0%	0.0%	31.2%	0.0%	44.6%
2005	1160	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	2.0%	0.0%	3.4%	0.0%	0.3%	0.0%	3.7%	0.0%	1.9%	0.6%	6.1%	0.0%	10.3%	0.0%	66.1%
2006	2791	2,3,4,5	0.1%	0.0%	0.0%	0.0%	0.0%	6.3%	1.6%	0.0%	1.8%	0.0%	0.0%	0.0%	5.2%	0.0%	0.4%	0.8%	5.7%	0.0%	38.9%	0.0%	39.3%
2007	3023	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.0%	10.2%	1.5%	0.0%	0.8%	0.0%	0.0%	0.0%	4.6%	0.0%	0.4%	0.8%	11.0%	0.0%	35.2%	0.0%	35.5%
2008	973	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	3.4%	0.0%	4.3%	0.0%	0.0%	0.0%	1.5%	0.0%	0.4%	0.8%	10.2%	0.0%	47.8%	0.0%	26.2%
2009	1355	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.1%	0.7%	8.2%	0.0%	36.5%	0.0%	46.3%
1979-2009	996		0.0%	0.0%	0.0%	0.2%	0.2%	9.0%	2.3%	0.3%	3.5%	0.2%	1.5%	0.0%	4.6%	0.1%	0.4%	4.6%	15.9%	0.0%	27.7%	0.4%	29.1%
1979-1984	201		0.0%	0.0%	0.0%	1.3%	0.0%	23.0%	0.0%	1.3%	5.8%	0.0%	4.3%	0.0%	3.0%	0.0%	0.0%	12.9%	33.8%	0.0%	11.0%	0.0%	3.7%
1985-1995	627		0.0%	0.0%	0.0%	0.3%	0.3%	11.5%	2.4%	0.5%	5.3%	0.4%	2.8%	0.0%	6.9%	0.2%	0.2%	7.8%	17.2%	0.0%	21.1%	0.3%	22.8%
1996-1998	895		0.1%	0.1%	0.0%	0.0%	0.3%	1.1%	2.5%	0.0%	1.8%	0.0%	0.3%	0.0%	1.0%	0.0%	0.3%	0.9%	18.2%	0.0%	31.4%	0.7%	41.3%
1999-2009	1536		0.0%	0.0%	0.0%	0.0%	0.1%	6.1%	2.5%	0.0%	1.9%	0.0%	0.0%	0.0%	3.7%	0.0%	0.6%	0.9%	10.8%	0.0%	36.3%	0.4%	36.8%

Appendix C.38. Percent distribution of Nisqually Fall Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM												Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	25	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	96	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	287	2,3,4	0 0%	0 0%	0 0%	1 7%	0 0%	13 9%	0 0%	1 7%	7 3%	0 0%	4 9%	0 0%	3 1%	0 0%	0 0%	8 4%	56 8%	0 0%	1 0%	0 0%	1 0%
1984	244	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	31 1%	0 0%	0 0%	1 2%	0 0%	2 5%	0 0%	1 6%	0 0%	0 0%	15 2%	24 6%	0 0%	18 9%	0 0%	4 9%
1985	84	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	28 6%	3 6%	0 0%	0 0%	0 0%	4 8%	0 0%	7 1%	0 0%	0 0%	21 4%	21 4%	0 0%	9 5%	0 0%	3 6%
1986	128	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	16 4%	0 0%	0 0%	12 5%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	10 9%	19 5%	0 0%	21 9%	0 0%	17 2%
1987	192	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	14 1%	0 0%	1 0%	10 4%	2 6%	1 6%	0 0%	5 7%	0 0%	0 0%	3 6%	20 8%	0 0%	27 6%	2 6%	9 9%
1988	381	2,3,4,5	0 0%	0 0%	0 0%	0 8%	2 6%	5 8%	0 0%	3 7%	15 0%	2 1%	4 5%	0 0%	8 1%	0 0%	0 0%	7 9%	19 7%	0 0%	8 1%	0 0%	21 8%
1989	1155	2,3,4,5	0 0%	0 0%	0 0%	0 4%	0 0%	5 4%	6 0%	0 0%	3 0%	0 0%	3 8%	0 0%	14 6%	2 2%	0 3%	11 7%	18 4%	0 0%	26 6%	0 4%	7 2%
1990	1387	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	23 5%	5 9%	0 0%	3 2%	0 2%	0 1%	0 0%	10 5%	0 0%	0 1%	1 9%	13 0%	0 0%	33 8%	0 0%	7 6%
1991	274	2,3,4,5	0 0%	0 0%	0 0%	2 2%	0 0%	9 1%	1 8%	0 0%	3 6%	0 0%	2 2%	0 0%	17 2%	0 0%	0 7%	6 2%	25 9%	0 0%	15 0%	0 0%	16 1%
1992	516	2,3,4,5	0 0%	0 0%	0 0%	0 0%	1 0%	7 2%	3 7%	0 0%	2 9%	0 0%	2 1%	0 0%	7 0%	0 0%	0 0%	11 8%	28 5%	0 0%	6 6%	0 0%	29 3%
1993	588	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	14 7%	1 7%	0 4%	4 1%	0 0%	2 9%	0 0%	3 2%	0 0%	0 7%	3 8%	20 9%	0 0%	17 9%	0 0%	29 7%
1994	1416	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 2%	0 4%	0 0%	2 3%	0 0%	2 6%	0 0%	0 6%	0 0%	0 0%	5 2%	38 1%	0 0%	13 0%	0 4%	33 1%
1995	1996	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 4%	8 0%	3 0%	0 0%	2 0%	0 0%	0 7%	0 0%	2 4%	0 0%	0 0%	1 5%	27 7%	0 0%	28 8%	0 0%	25 8%
1996	1068	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	0 7%	1 2%	0 0%	3 6%	0 0%	0 9%	0 0%	1 6%	0 0%	0 0%	1 5%	26 2%	0 0%	37 6%	0 0%	26 5%
1997	732	2,3,4,5	0 0%	0 5%	0 0%	0 0%	0 5%	3 1%	5 3%	0 0%	0 7%	0 0%	0 4%	0 0%	0 8%	0 0%	1 0%	0 8%	29 2%	0 0%	16 4%	1 4%	39 8%
1998	1368	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 4%	0 4%	0 7%	0 0%	1 5%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 5%	25 6%	0 0%	31 1%	0 7%	38 4%
1999	1606	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	2 7%	0 0%	3 3%	0 0%	0 0%	0 0%	3 1%	0 0%	0 3%	1 3%	23 4%	0 0%	40 8%	0 0%	24 8%
2000	723	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	13 7%	3 0%	0 0%	2 8%	0 0%	0 0%	0 0%	1 7%	0 0%	1 4%	2 2%	28 6%	0 0%	35 4%	0 0%	11 2%
2001	1167	2,3,4,5	0 3%	0 0%	0 0%	0 0%	0 0%	3 0%	2 8%	0 0%	1 5%	0 0%	0 0%	0 0%	4 5%	0 0%	0 4%	0 4%	25 9%	0 0%	26 0%	0 0%	35 2%
2002	1512	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	6 8%	3 6%	0 0%	0 9%	0 0%	0 0%	0 0%	3 7%	0 0%	0 6%	0 6%	12 2%	0 0%	39 2%	3 4%	28 9%
2003	1740	2,3,4,5	0 1%	0 0%	0 0%	0 0%	0 6%	5 3%	1 9%	0 0%	1 3%	0 0%	0 0%	0 0%	4 6%	0 0%	0 0%	0 4%	15 1%	0 0%	41 6%	1 9%	27 3%
2004	1803	2,3,4,5	0 0%	0 1%	0 0%	0 0%	0 0%	5 9%	1 2%	0 0%	1 3%	0 0%	0 0%	0 0%	7 4%	0 0%	0 7%	0 7%	12 8%	0 0%	29 7%	0 0%	40 3%
2005	1322	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	2 1%	0 0%	3 9%	0 0%	0 3%	0 0%	4 2%	0 0%	2 0%	0 7%	13 6%	0 0%	9 8%	0 0%	58 0%
2006	3054	2,3,4,5	0 1%	0 0%	0 0%	0 0%	0 0%	6 3%	1 8%	0 0%	2 1%	0 0%	0 0%	0 0%	5 9%	0 0%	0 4%	0 8%	8 6%	0 0%	38 1%	0 0%	35 9%
2007	3273	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 0%	9 9%	1 5%	0 0%	0 9%	0 0%	0 0%	0 0%	5 0%	0 0%	0 4%	0 8%	14 6%	0 0%	34 1%	0 0%	32 8%
2008	1107	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	3 5%	0 0%	4 7%	0 0%	0 0%	0 0%	1 7%	0 0%	0 5%	0 9%	15 5%	0 0%	44 9%	0 0%	23 0%
2009	1540	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 0%	0 1%	0 8%	15 0%	0 0%	34 7%	0 0%	40 7%
1979-2009	1141		0 0%	0 0%	0 0%	0 2%	0 2%	9 3%	2 3%	0 3%	3 6%	0 2%	1 3%	0 0%	4 8%	0 1%	0 4%	4 5%	22 3%	0 0%	25 5%	0 4%	24 8%
1979-1984	266		0 0%	0 0%	0 0%	0 9%	0 0%	22 5%	0 0%	0 9%	4 3%	0 0%	3 7%	0 0%	2 4%	0 0%	0 0%	11 8%	40 7%	0 0%	9 9%	0 0%	3 0%
1985-1995	747		0 0%	0 0%	0 0%	0 3%	0 4%	12 4%	2 4%	0 5%	5 4%	0 4%	2 4%	0 0%	7 0%	0 2%	0 2%	7 8%	23 1%	0 0%	19 0%	0 3%	18 3%
1996-1998	1056		0 1%	0 2%	0 0%	0 0%	0 3%	1 4%	2 4%	0 0%	1 9%	0 0%	0 4%	0 0%	1 0%	0 0%	0 3%	0 9%	27 0%	0 0%	28 4%	0 7%	34 9%
1999-2009	1718		0 0%	0 0%	0 0%	0 0%	0 1%	5 8%	2 6%	0 0%	2 0%	0 0%	0 0%	0 0%	4 0%	0 0%	0 6%	0 9%	16 9%	0 0%	34 0%	0 5%	32 6%

Appendix C.39. Percent distribution of Nooksack Spring Yearling (Nooksack Spring Yearling) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	23	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	214	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	185	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	191	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	84.8%
1987	523	3,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	537	2,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	116	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.8%	6.9%	0.0%	0.0%	0.0%	73.3%
1990	41	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	0.0%	14.6%	0.0%	2.4%	0.0%	0.0%	4.9%	34.1%	0.0%	0.0%	0.0%	29.3%
1991	285	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	7.0%	0.0%	32.6%	0.0%	6.3%	0.0%	2.1%	0.0%	0.0%	7.0%	5.3%	0.0%	1.4%	0.0%	36.1%
1992	857	2,3,4,5	0.4%	0.4%	0.0%	0.0%	0.4%	17.5%	2.3%	1.3%	11.0%	0.9%	1.6%	0.0%	0.9%	0.0%	0.0%	0.4%	7.8%	0.0%	0.0%	0.0%	55.2%
1993	618	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	7.6%	2.3%	12.5%	0.0%	6.5%	0.0%	0.8%	0.0%	0.0%	5.3%	11.5%	0.0%	0.0%	0.0%	49.2%
1994	511	2,4,5	0.6%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	6.1%	28.2%	0.0%	1.0%	0.0%	0.2%	0.0%	0.0%	6.3%	3.3%	0.0%	0.0%	0.0%	49.3%
1995	171	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	7.0%	0.0%	0.0%	0.0%	67.3%
1996	186	2,3,4	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	3.2%	0.0%	12.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	79.6%
1997	113	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	14.2%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	3.5%	15.9%	0.0%	0.0%	0.0%	58.4%
1998	114	2,3,4,5	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	6.1%	0.0%	15.8%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	1.8%	5.3%	0.0%	2.6%	0.0%	59.6%
1999	195	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	1.0%	0.0%	23.6%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	1.5%	1.0%	0.0%	3.1%	0.0%	64.6%
2000	148	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	31	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	283		0.1%	0.0%	0.0%	0.0%	0.4%	2.6%	2.7%	0.8%	16.9%	0.1%	3.6%	0.0%	0.8%	0.0%	0.0%	3.9%	8.6%	0.0%	0.6%	0.0%	58.9%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	349		0.1%	0.0%	0.0%	0.0%	0.0%	3.6%	2.1%	1.2%	17.1%	0.1%	4.3%	0.0%	0.8%	0.0%	0.0%	5.1%	9.7%	0.0%	0.2%	0.0%	55.6%
1996-1998	138		0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	4.9%	0.0%	14.1%	0.0%	2.6%	0.0%	0.2%	0.0%	0.0%	1.8%	8.1%	0.0%	0.9%	0.0%	65.9%
1999-2009	195		0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	1.0%	0.0%	23.6%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	1.5%	1.0%	0.0%	3.1%	0.0%	64.6%

Appendix C.40. Percent distribution of Nooksack Spring Yearling (Nooksack Spring Yearling) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	39	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	226	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	200	3,4	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	237	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.8%	2.5%	9.3%	0.4%	4.6%	0.0%	0.4%	0.0%	0.0%	8.0%	3.8%	0.0%	0.0%	0.0%	68.4%
1987	562	3,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	556	2,4	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	124	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	8.9%	0.0%	0.0%	0.0%	68.5%
1990	71	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%	1.4%	0.0%	26.8%	1.4%	12.7%	0.0%	1.4%	0.0%	0.0%	2.8%	28.2%	0.0%	0.0%	0.0%	16.9%
1991	336	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	6.8%	0.0%	36.9%	0.0%	6.3%	0.0%	2.4%	0.0%	0.0%	6.5%	6.8%	0.0%	1.2%	0.0%	30.7%
1992	1002	2,3,4,5	1.7%	1.6%	0.0%	0.0%	0.4%	19.5%	2.3%	1.7%	12.0%	1.0%	1.6%	0.0%	1.0%	0.0%	0.0%	0.4%	9.7%	0.0%	0.0%	0.0%	47.2%
1993	666	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	7.7%	3.3%	14.3%	0.0%	6.2%	0.0%	0.8%	0.0%	0.0%	5.1%	12.3%	0.0%	0.0%	0.0%	45.6%
1994	530	2,4,5	0.6%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	6.0%	29.8%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%	6.0%	3.8%	0.0%	0.0%	0.0%	47.5%
1995	192	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.5%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	3.1%	12.0%	0.0%	0.0%	0.0%	59.9%
1996	198	2,3,4	0.0%	0.0%	0.0%	0.0%	1.0%	0.5%	3.0%	0.0%	14.6%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	74.7%
1997	128	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	0.0%	15.6%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	3.1%	21.9%	0.0%	0.0%	0.0%	51.6%
1998	128	2,3,4,5	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	6.3%	0.0%	17.2%	0.0%	6.3%	0.0%	0.0%	0.0%	0.0%	1.6%	8.6%	0.0%	2.3%	0.0%	53.1%
1999	207	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.4%	0.0%	26.1%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.4%	1.9%	0.0%	2.9%	0.0%	60.9%
2000	155	4,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	31	5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	318		0.2%	0.1%	0.0%	0.0%	0.5%	3.7%	2.9%	1.1%	19.6%	0.2%	3.4%	0.0%	0.8%	0.0%	0.0%	4.4%	10.3%	0.0%	0.5%	0.0%	52.1%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	395		0.3%	0.2%	0.0%	0.0%	0.0%	5.2%	2.4%	1.7%	20.2%	0.4%	4.1%	0.0%	0.8%	0.0%	0.0%	5.8%	10.7%	0.0%	0.1%	0.0%	48.1%
1996-1998	151		0.0%	0.0%	0.0%	0.0%	1.9%	0.2%	4.9%	0.0%	15.8%	0.0%	2.9%	0.0%	0.2%	0.0%	0.0%	1.6%	12.0%	0.0%	0.8%	0.0%	59.8%
1999-2009	207		0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.4%	0.0%	26.1%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.4%	1.9%	0.0%	2.9%	0.0%	60.9%

Appendix C.41. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring Yearling) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							PSSM														
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	4	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	127	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	459	3,4	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	359	4,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	45	2,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	358	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	949	2,3,4	1.4%	0.0%	0.0%	0.0%	1.2%	0.0%	4.0%	0.0%	17.0%	0.0%	4.8%	0.0%	0.7%	0.0%	0.0%	0.2%	6.4%	0.0%	0.1%	0.0%	64.2%
1997	1943	2,3,4,5	3.5%	0.2%	0.7%	0.2%	0.1%	1.7%	4.1%	0.0%	10.1%	0.1%	0.4%	0.0%	0.5%	0.0%	0.0%	0.5%	5.2%	0.0%	0.8%	0.0%	72.1%
1998	1476	2,3,4,5	8.0%	0.2%	0.0%	0.0%	0.0%	1.7%	3.2%	0.0%	3.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%	0.6%	0.0%	0.0%	0.0%	82.9%
1999	1601	2,3,4,5	1.6%	0.9%	0.0%	0.0%	0.9%	2.2%	5.4%	0.0%	3.6%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	83.6%
2000	867	2,3,4,5	4.5%	0.2%	0.0%	0.0%	0.0%	20.5%	4.6%	0.0%	11.6%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.3%	0.0%	0.0%	0.0%	57.7%
2001	1331	2,3,4,5	1.4%	0.0%	0.0%	0.0%	0.0%	10.1%	4.4%	0.0%	4.2%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.5%	0.7%	0.0%	0.3%	0.0%	77.3%
2002	1242	2,3,4,5	5.5%	0.0%	0.5%	0.8%	1.1%	17.6%	2.1%	0.0%	1.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.4%	0.2%	0.5%	0.0%	0.0%	0.0%	69.9%
2003	733	2,3,4,5	3.4%	0.0%	0.0%	0.0%	0.5%	13.6%	2.3%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.8%	0.0%	1.0%	0.0%	71.1%
2004	645	2,3,4,5	1.2%	0.0%	0.0%	0.3%	0.0%	31.9%	4.8%	0.0%	8.8%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	1.2%	0.0%	0.5%	0.0%	48.5%
2005	805	2,3,4,5	3.4%	0.1%	0.0%	0.2%	0.0%	31.9%	3.9%	0.0%	7.5%	0.0%	0.4%	0.0%	0.5%	0.0%	0.2%	0.0%	0.7%	0.0%	0.9%	0.0%	50.3%
2006	517	2,3,4,5	1.9%	0.0%	0.4%	1.2%	0.0%	32.3%	6.2%	0.0%	7.4%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.2%	2.7%	0.0%	2.3%	0.6%	43.7%
2007	526	2,3,4,5	5.3%	0.0%	1.0%	0.4%	0.0%	24.7%	8.9%	0.0%	7.0%	0.0%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	3.2%	0.0%	0.8%	0.4%	47.7%
2008	946	2,3,4,5	1.1%	0.1%	0.0%	0.3%	0.0%	20.8%	12.8%	0.0%	13.1%	0.0%	0.0%	0.0%	1.2%	0.0%	0.4%	0.4%	4.8%	0.0%	2.6%	0.0%	42.4%
2009	737	2,3,4,5	3.0%	0.4%	0.0%	0.0%	0.0%	7.5%	10.0%	0.0%	11.7%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	2.8%	0.0%	1.5%	0.0%	62.4%
1979-2009	1023		3.2%	0.1%	0.2%	0.2%	0.3%	15.5%	5.5%	0.0%	8.0%	0.0%	0.4%	0.0%	0.8%	0.0%	0.1%	0.2%	2.3%	0.0%	0.8%	0.1%	62.4%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	1456		4.3%	0.1%	0.2%	0.1%	0.4%	1.1%	3.8%	0.0%	10.0%	0.0%	1.8%	0.0%	0.5%	0.0%	0.0%	0.3%	4.1%	0.0%	0.3%	0.0%	73.1%
1999-2009	905		2.9%	0.2%	0.2%	0.3%	0.2%	19.4%	5.9%	0.0%	7.5%	0.0%	0.1%	0.0%	0.8%	0.0%	0.1%	0.2%	1.8%	0.0%	0.9%	0.1%	59.5%

Appendix C.42. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring Yearling) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	10	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	182	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	509	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	367	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	63	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	462	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	1098	2,3,4	3.5%	0.0%	0.2%	0.0%	1.0%	1.0%	4.2%	0.0%	18.7%	0.0%	5.6%	0.0%	0.7%	0.0%	0.0%	0.2%	9.5%	0.0%	0.1%	0.0%	55.5%
1997	2071	2,3,4,5	3.9%	0.4%	0.8%	0.2%	0.1%	2.1%	4.1%	0.0%	11.3%	0.0%	1.3%	0.0%	0.6%	0.0%	0.0%	0.4%	6.3%	0.0%	0.8%	0.0%	67.6%
1998	1519	2,3,4,5	8.8%	0.3%	0.0%	0.0%	0.0%	1.8%	3.6%	0.0%	3.4%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%	1.1%	0.0%	0.0%	0.0%	80.6%
1999	1664	2,3,4,5	2.0%	1.7%	0.0%	0.0%	1.0%	2.2%	5.8%	0.0%	4.3%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	80.4%
2000	925	2,3,4,5	5.3%	0.2%	0.0%	0.0%	0.0%	21.0%	5.1%	0.0%	13.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.6%	0.0%	0.0%	0.0%	54.1%
2001	1386	2,3,4,5	1.9%	0.0%	0.0%	0.0%	0.0%	10.2%	5.0%	0.0%	5.1%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.5%	1.6%	0.0%	0.3%	0.0%	74.2%
2002	1280	2,3,4,5	6.3%	0.0%	0.5%	0.9%	1.4%	17.7%	2.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.5%	0.2%	0.7%	0.0%	0.0%	0.0%	67.8%
2003	777	2,3,4,5	3.9%	0.0%	0.0%	0.0%	0.6%	14.2%	3.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	3.3%	0.0%	0.9%	0.0%	67.1%
2004	685	2,3,4,5	1.5%	0.0%	0.0%	0.3%	0.0%	31.5%	5.4%	0.0%	10.5%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	1.6%	0.0%	0.4%	0.0%	45.7%
2005	848	2,3,4,5	3.8%	0.1%	0.0%	0.2%	0.0%	32.4%	4.4%	0.0%	8.3%	0.0%	0.5%	0.0%	0.5%	0.0%	0.2%	0.0%	1.1%	0.0%	0.8%	0.0%	47.8%
2006	558	2,3,4,5	2.3%	0.0%	0.5%	1.3%	0.0%	32.1%	6.8%	0.0%	8.6%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.2%	3.8%	0.0%	2.2%	0.5%	40.5%
2007	595	2,3,4,5	5.7%	0.0%	1.5%	0.3%	0.0%	24.7%	9.6%	0.0%	7.9%	0.0%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	6.6%	0.0%	0.7%	0.3%	42.2%
2008	1038	2,3,4,5	1.4%	0.2%	0.0%	0.4%	0.0%	20.0%	13.5%	0.0%	15.1%	0.0%	0.0%	0.0%	1.3%	0.0%	0.5%	0.4%	6.0%	0.0%	2.6%	0.0%	38.6%
2009	813	2,3,4,5	3.4%	0.4%	0.0%	0.0%	0.0%	7.6%	11.2%	0.0%	13.5%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	5.0%	0.0%	1.4%	0.0%	56.6%
1979-2009	1090		3.8%	0.2%	0.3%	0.3%	0.3%	15.6%	6.0%	0.0%	9.1%	0.0%	0.5%	0.0%	0.8%	0.0%	0.1%	0.2%	3.5%	0.0%	0.7%	0.1%	58.5%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	1563		5.4%	0.2%	0.3%	0.1%	0.4%	1.6%	3.9%	0.0%	11.1%	0.0%	2.3%	0.0%	0.5%	0.0%	0.0%	0.2%	5.6%	0.0%	0.3%	0.0%	67.9%
1999-2009	961		3.4%	0.2%	0.2%	0.3%	0.3%	19.4%	6.5%	0.0%	8.6%	0.0%	0.1%	0.0%	0.9%	0.0%	0.1%	0.2%	2.9%	0.0%	0.8%	0.1%	55.9%

Appendix C.43. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) reported catch among fisheries and escapement.

			AABM							ISBM													
Catch	Estimated # of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1470	2,3,4	1 5%	0 3%	0 2%	2 6%	0 3%	0 7%	0 0%	19 9%	16 9%	8 0%	12 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 0%
1980	761	2,3,4,5	2 4%	0 0%	0 4%	2 0%	1 3%	5 3%	0 0%	16 2%	23 1%	5 8%	10 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 5%
1981	506	2,3,4,5	0 8%	0 0%	0 0%	4 5%	4 0%	0 0%	0 0%	21 9%	37 5%	7 3%	8 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 0%
1982	507	2,3,4,5	0 8%	0 4%	0 0%	3 7%	1 2%	1 8%	0 0%	5 5%	16 2%	14 4%	22 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%
1983	489	2,3,4,5	1 0%	0 2%	0 0%	8 0%	3 1%	2 5%	0 0%	12 7%	13 3%	16 2%	8 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 2%
1984	300	2,3,4,5	0 0%	1 0%	0 0%	2 0%	1 0%	2 0%	0 0%	5 3%	17 7%	5 0%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 3%
1985	133	2,3,4,5	10 5%	0 8%	2 3%	6 0%	6 0%	0 0%	0 0%	0 0%	32 3%	1 5%	14 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 3%
1986	180	2,3,4,5	5 6%	0 0%	4 4%	2 8%	0 0%	2 8%	0 0%	10 6%	32 2%	3 9%	11 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 1%
1987	148	2,3,4,5	2 7%	0 7%	0 0%	12 2%	10 1%	0 0%	4 7%	0 0%	16 9%	2 0%	6 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 9%
1988	92	2,3,4,5	12 0%	0 0%	0 0%	0 0%	14 1%	0 0%	0 0%	0 0%	17 4%	0 0%	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	51 1%
1989	62	2,3,4,5	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 4%
1990	96	2,3,4,5	8 3%	0 0%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	8 3%	3 1%	14 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	61 5%
1991	97	2,3,4,5	6 2%	6 2%	0 0%	0 0%	9 3%	0 0%	0 0%	0 0%	26 8%	0 0%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 2%
1992	87	2,3,4,5	0 0%	0 0%	0 0%	0 0%	3 4%	0 0%	0 0%	3 4%	33 3%	0 0%	21 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 9%
1993	70	2,3,4,5	0 0%	0 0%	0 0%	0 0%	11 4%	0 0%	0 0%	0 0%	48 6%	0 0%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 9%
1994	28	2,3,4,5	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 6%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	28 6%
1995	36	2,3,4,5	5 6%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 6%	0 0%	13 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 2%
1996	45	2,3,4,5	0 0%	0 0%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	28 9%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 2%
1997	26	3,4,5	0 0%	0 0%	0 0%	0 0%	7 7%	0 0%	0 0%	0 0%	7 7%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	80 8%
1998	8	2,4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	48	2,3,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 4%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 3%
2000	61	2,3,4	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2001	213	2,3,4,5	2 8%	0 9%	0 0%	0 0%	0 9%	2 3%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 1%
2002	112	2,3,4,5	4 5%	0 0%	0 0%	0 0%	8 9%	0 0%	9 8%	0 0%	3 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 2%
2003	108	2,3,4,5	0 0%	0 0%	0 0%	0 0%	9 3%	0 0%	0 0%	0 0%	4 6%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	85 2%
2004	98	2,3,4,5	14 3%	1 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	8 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 5%
2005	306	2,3,4,5	1 6%	0 0%	0 0%	1 3%	9 2%	0 7%	0 0%	0 0%	11 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 5%
2006	221	2,3,4,5	6 8%	8 6%	0 0%	0 9%	2 7%	0 0%	1 8%	0 0%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 9%
2007	158	2,3,4,5	20 3%	5 7%	1 9%	1 3%	5 7%	0 0%	0 0%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	63 3%
2008	101	2,3,4,5	2 0%	2 0%	3 0%	0 0%	5 9%	0 0%	7 9%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 3%
2009	245	2,3,4,5	3 3%	2 9%	0 0%	0 0%	4 9%	0 0%	0 0%	0 0%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	78 8%
1979-2009	227		4 1%	1 2%	0 4%	1 6%	4 4%	0 7%	0 8%	3 2%	19 4%	2 2%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 4%
1979-1984	672		1 1%	0 3%	0 1%	3 8%	1 8%	2 0%	0 0%	13 6%	20 8%	9 4%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 7%
1985-1995	94		5 6%	0 9%	0 6%	1 9%	5 3%	0 3%	0 4%	1 3%	31 7%	1 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 4%
1996-1998	36		0 0%	0 0%	0 0%	0 0%	7 2%	0 0%	0 0%	0 0%	18 3%	0 0%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	71 5%
1999-2009	152		5 0%	2 1%	0 4%	0 3%	4 3%	0 6%	1 8%	0 0%	6 6%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	78 2%

Appendix C.44. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1551	2,3,4	1 8%	0 3%	0 3%	2 9%	0 3%	1 2%	0 0%	19 6%	17 1%	9 1%	12 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 1%
1980	822	2,3,4,5	2 8%	0 0%	0 5%	2 3%	1 3%	6 1%	0 0%	16 2%	22 9%	6 6%	10 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	31 0%
1981	547	2,3,4,5	0 7%	0 0%	0 0%	5 5%	4 0%	0 0%	0 0%	21 4%	37 3%	8 6%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 9%
1982	567	2,3,4,5	1 2%	0 5%	0 0%	4 2%	1 4%	2 1%	0 0%	5 6%	15 7%	16 4%	22 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 8%
1983	531	2,3,4,5	1 9%	0 2%	0 0%	8 5%	3 2%	2 6%	0 0%	12 8%	13 2%	17 3%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 4%
1984	314	2,3,4,5	0 0%	1 0%	0 0%	2 2%	1 3%	2 2%	0 0%	5 7%	18 2%	5 7%	6 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 6%
1985	153	2,3,4,5	13 1%	1 3%	3 9%	6 5%	6 5%	0 0%	0 0%	0 0%	30 7%	1 3%	13 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	22 9%
1986	199	2,3,4,5	5 0%	0 0%	5 5%	3 0%	0 0%	3 0%	0 0%	12 6%	31 2%	4 5%	11 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	23 6%
1987	162	2,3,4,5	2 5%	1 2%	0 0%	15 4%	10 5%	0 0%	4 3%	0 0%	16 7%	3 1%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 1%
1988	100	2,3,4,5	11 0%	0 0%	0 0%	0 0%	16 0%	0 0%	0 0%	0 0%	20 0%	0 0%	6 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	47 0%
1989	71	2,3,4,5	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	42 3%
1990	101	2,3,4,5	8 9%	0 0%	0 0%	0 0%	4 0%	0 0%	0 0%	0 0%	8 9%	4 0%	15 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	58 4%
1991	121	2,3,4,5	6 6%	11 6%	0 0%	0 0%	9 9%	0 0%	0 0%	0 0%	28 9%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 2%
1992	98	2,3,4,5	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	4 1%	38 8%	0 0%	20 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 7%
1993	79	2,3,4,5	0 0%	0 0%	0 0%	0 0%	11 4%	0 0%	0 0%	0 0%	53 2%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 1%
1994	32	2,3,4,5	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	56 3%	0 0%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 0%
1995	42	2,3,4,5	4 8%	4 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%	0 0%	16 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 5%
1996	49	2,3,4,5	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	0 0%	0 0%	34 7%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 1%
1997	27	3,4,5	0 0%	0 0%	0 0%	0 0%	11 1%	0 0%	0 0%	0 0%	7 4%	0 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 8%
1998	11	2,4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	52	2,3,5	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 5%	0 0%	7 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	76 9%
2000	63	2,3,4	1 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	85 7%
2001	217	2,3,4,5	3 2%	1 4%	0 0%	0 0%	1 4%	2 3%	0 0%	0 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2002	122	2,3,4,5	5 7%	0 0%	0 0%	0 0%	11 5%	0 0%	11 5%	0 0%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 2%
2003	113	2,3,4,5	0 0%	0 0%	0 0%	0 0%	11 5%	0 0%	0 0%	0 0%	6 2%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	81 4%
2004	105	2,3,4,5	17 1%	1 0%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	10 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 6%
2005	329	2,3,4,5	2 1%	0 0%	0 0%	1 5%	11 6%	0 6%	0 0%	0 0%	14 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	70 2%
2006	254	2,3,4,5	9 4%	14 6%	0 0%	1 2%	3 1%	0 0%	2 0%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	66 9%
2007	180	2,3,4,5	21 7%	10 6%	2 2%	1 1%	7 2%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 6%
2008	112	2,3,4,5	2 7%	2 7%	5 4%	0 0%	7 1%	0 0%	8 9%	0 0%	8 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	65 2%
2009	267	2,3,4,5	5 2%	3 4%	0 0%	0 0%	6 7%	0 0%	0 0%	0 0%	12 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 3%
1979-2009	246		4 8%	1 9%	0 6%	1 8%	5 0%	0 8%	0 9%	3 3%	20 9%	2 6%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	50 9%
1979-1984	722		1 4%	0 3%	0 1%	4 3%	1 9%	2 4%	0 0%	13 6%	20 7%	10 6%	11 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 3%
1985-1995	105		5 8%	1 7%	0 9%	2 3%	5 6%	0 3%	0 4%	1 5%	33 9%	1 2%	10 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	35 9%
1996-1998	38		0 0%	0 0%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	21 1%	0 0%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 5%
1999-2009	165		6 4%	3 2%	0 7%	0 3%	5 5%	0 5%	2 0%	0 0%	7 9%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 6%

Appendix C.45. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	3	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	96	2,3,4	9 4%	0 0%	0 0%	13 5%	0 0%	11 5%	0 0%	0 0%	0 0%	2 1%	3 1%	0 0%	2 1%	0 0%	0 0%	0 0%	3 1%	0 0%	31 3%	0 0%	24 0%
1982	230	2,3,4,5	12 6%	2 6%	0 0%	18 3%	1 3%	13 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	27 0%	0 0%	24 3%
1983	147	2,3,4,5,6	29 9%	0 0%	0 0%	16 3%	0 0%	6 8%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 7%	0 0%	0 0%	1 4%	0 0%	0 0%	21 8%	0 0%	20 4%
1984	144	2,3,4,5,6	16 0%	0 7%	0 0%	19 4%	2 1%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	28 5%	0 0%	22 9%
1985	250	2,3,4,5,6	15 6%	0 0%	0 0%	31 6%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	14 4%	0 0%	33 6%
1986	283	3,4,5,6	17 3%	0 0%	1 1%	11 7%	0 0%	7 1%	0 0%	0 0%	0 0%	1 8%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 5%	0 0%	50 5%
1987	538	2,4,5,6	22 3%	0 2%	0 0%	11 7%	0 9%	0 7%	0 0%	0 0%	0 0%	0 9%	0 6%	0 0%	0 6%	0 0%	0 0%	0 2%	0 6%	0 0%	22 7%	0 0%	38 7%
1988	727	2,3,5,6	14 4%	0 8%	1 7%	7 8%	0 0%	4 0%	1 1%	0 0%	0 0%	2 5%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	0 0%	16 6%	0 0%	47 3%
1989	569	2,3,4,6	11 1%	0 0%	0 0%	9 1%	1 1%	7 6%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	27 8%	0 0%	41 1%
1990	1264	2,3,4,5	12 7%	0 0%	0 0%	5 5%	1 8%	6 6%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 8%	0 0%	58 9%
1991	1102	2,3,4,5,6	20 5%	0 2%	1 1%	9 7%	1 3%	4 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	15 7%	0 0%	46 3%
1992	631	2,3,4,5,6	8 4%	0 8%	2 2%	7 8%	1 9%	17 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	19 3%	0 0%	41 7%
1993	613	2,3,4,5,6	15 5%	0 0%	0 7%	14 0%	2 1%	12 6%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 5%	0 0%	2 0%	0 0%	0 8%	0 0%	16 0%	0 0%	35 6%
1994	1049	2,3,4,5,6	16 1%	0 3%	0 5%	21 7%	1 5%	4 1%	1 0%	0 0%	0 3%	0 2%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 4%	0 0%	32 4%
1995	746	2,3,4,5,6	17 3%	0 0%	1 6%	6 0%	3 4%	0 7%	0 4%	0 0%	0 3%	0 0%	0 1%	0 0%	0 7%	0 0%	0 0%	0 3%	0 0%	0 0%	33 1%	0 0%	36 2%
1996	714	2,3,4,5,6	10 4%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 5%	0 6%	70 2%
1997	903	2,3,4,5,6	34 4%	0 3%	0 0%	6 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 8%	0 0%	37 3%
1998	638	2,3,4,5,6	23 7%	0 0%	3 0%	19 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	12 1%	4 4%	37 0%
1999	740	2,3,4,5,6	9 2%	0 0%	1 4%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	8 8%	0 0%	77 8%
2000	444	2,3,4,5,6	23 0%	0 0%	9 7%	13 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	50 0%
2001	447	2,3,4,5,6	23 5%	0 0%	5 8%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 7%	0 0%	0 0%	0 0%	41 8%	0 0%	22 4%
2002	1632	2,3,4,5,6	25 4%	0 0%	3 3%	4 8%	2 4%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	24 9%	0 0%	38 7%
2003	1447	2,3,4,5,6	20 8%	0 1%	3 6%	10 6%	4 8%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	21 4%	0 0%	37 7%
2004	2548	2,3,4,5,6	15 2%	0 4%	3 1%	6 7%	6 5%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	11 8%	0 0%	54 1%
2005	2523	2,3,4,5,6	14 5%	0 0%	3 3%	6 8%	2 6%	3 6%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	0 5%	0 0%	0 0%	0 0%	19 9%	0 0%	48 4%
2006	1076	2,3,4,5,6	23 6%	0 4%	2 6%	13 1%	3 3%	4 1%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	0 0%	17 3%	0 0%	34 4%
2007	599	2,3,4,5,6	28 5%	0 0%	3 8%	11 2%	13 9%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	0 3%	0 2%	0 0%	0 0%	0 0%	16 4%	0 0%	23 0%
2008	1003	3,4,5,6	13 3%	0 0%	1 2%	7 2%	4 4%	0 8%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 4%	0 0%	50 7%
2009	1467	4,5,6	22 9%	1 2%	3 0%	8 8%	2 9%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 5%	0 0%	46 8%
1979-2009	847		18 2%	0 3%	1 9%	11 0%	2 0%	4 1%	0 2%	0 0%	0 0%	0 3%	0 4%	0 0%	0 4%	0 0%	0 2%	0 1%	0 4%	0 0%	19 7%	0 2%	40 8%
1979-1984	154		17 0%	0 8%	0 0%	16 9%	0 8%	9 9%	0 0%	0 0%	0 0%	0 5%	1 7%	0 0%	1 2%	0 0%	0 0%	0 3%	0 8%	0 0%	27 1%	0 0%	22 9%
1985-1995	707		15 6%	0 2%	0 8%	12 4%	1 3%	6 1%	0 2%	0 0%	0 1%	0 6%	0 4%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	19 1%	0 0%	42 0%
1996-1998	752		22 8%	0 1%	1 5%	8 4%	0 0%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	16 8%	1 6%	48 2%
1999-2009	1266		20 0%	0 2%	3 7%	8 2%	3 7%	1 0%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	0 0%	18 3%	0 0%	44 0%

Appendix C.46. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	2	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	15	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	115	2,3,4	12 2%	0 0%	0 0%	18 3%	0 0%	13 0%	0 0%	0 0%	0 0%	1 7%	2 6%	0 0%	1 7%	0 0%	0 0%	0 0%	3 5%	0 0%	27 0%	0 0%	20 0%
1982	249	2,3,4,5	14 5%	2 4%	0 0%	20 1%	1 2%	12 9%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	25 3%	0 0%	22 5%
1983	199	2,3,4,5,6	46 2%	0 0%	0 0%	13 1%	0 0%	5 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 5%	0 0%	0 0%	1 5%	0 0%	0 0%	16 6%	0 0%	15 1%
1984	154	2,3,4,5,6	16 2%	0 6%	0 0%	21 4%	2 6%	7 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	27 3%	0 0%	21 4%
1985	293	2,3,4,5,6	20 1%	0 0%	0 0%	33 4%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	12 6%	0 0%	28 7%
1986	328	3,4,5,6	25 3%	0 0%	1 2%	11 3%	0 0%	7 0%	0 0%	0 0%	0 0%	1 5%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	9 1%	0 0%	43 6%
1987	607	2,4,5,6	28 5%	0 3%	0 0%	11 7%	1 0%	1 3%	0 0%	0 0%	0 0%	0 8%	0 5%	0 0%	0 5%	0 0%	0 0%	0 2%	0 7%	0 0%	20 3%	0 0%	34 3%
1988	825	2,3,5,6	17 8%	1 7%	1 6%	9 5%	0 1%	5 6%	1 0%	0 0%	0 0%	2 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	0 0%	14 9%	0 0%	41 7%
1989	661	2,3,4,6	16 8%	0 2%	0 2%	10 6%	1 1%	8 9%	0 0%	0 0%	0 0%	0 6%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	24 4%	0 0%	35 4%
1990	1351	2,3,4,5	15 2%	0 1%	0 1%	6 4%	1 9%	7 1%	0 0%	0 0%	0 0%	0 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 3%	0 0%	55 1%
1991	1199	2,3,4,5,6	24 4%	0 3%	1 2%	10 1%	1 4%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	14 6%	0 0%	42 5%
1992	763	2,3,4,5,6	14 0%	4 1%	2 4%	8 7%	1 8%	17 4%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	16 3%	0 0%	34 5%
1993	699	2,3,4,5,6	19 3%	0 0%	0 7%	15 3%	2 0%	13 6%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 4%	0 0%	1 9%	0 0%	1 0%	0 0%	14 3%	0 0%	31 2%
1994	1214	2,3,4,5,6	23 6%	0 7%	0 4%	21 3%	1 5%	4 0%	1 0%	0 0%	0 2%	0 2%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 7%	0 0%	28 0%
1995	834	2,3,4,5,6	21 9%	0 0%	1 8%	7 4%	3 8%	0 8%	0 4%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	0 0%	0 4%	0 0%	0 0%	29 9%	0 0%	32 4%
1996	805	2,3,4,5,6	18 1%	0 0%	1 5%	1 1%	0 1%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 9%	0 5%	62 2%
1997	972	2,3,4,5,6	38 3%	0 4%	0 0%	6 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	19 5%	0 0%	34 7%
1998	676	2,3,4,5,6	25 3%	0 0%	3 1%	19 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	11 5%	4 4%	34 9%
1999	788	2,3,4,5,6	13 7%	0 0%	1 9%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	8 4%	0 0%	73 1%
2000	512	2,3,4,5,6	27 0%	0 0%	12 1%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 5%	0 0%	43 4%
2001	503	2,3,4,5,6	28 6%	0 0%	6 8%	5 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 6%	0 0%	0 0%	0 0%	38 0%	0 0%	19 9%
2002	1784	2,3,4,5,6	29 3%	0 0%	3 6%	5 1%	2 9%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	23 2%	0 0%	35 4%
2003	1572	2,3,4,5,6	23 0%	0 1%	3 9%	11 5%	5 9%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	20 0%	0 0%	34 7%
2004	2757	2,3,4,5,6	17 3%	0 7%	3 2%	7 3%	8 3%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	11 2%	0 0%	50 0%
2005	2620	2,3,4,5,6	15 6%	0 0%	3 5%	7 2%	3 1%	3 5%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	0 5%	0 0%	0 0%	0 0%	19 4%	0 0%	46 6%
2006	1171	2,3,4,5,6	26 1%	0 4%	2 9%	13 7%	3 8%	4 1%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	0 0%	16 1%	0 0%	31 6%
2007	713	2,3,4,5,6	32 3%	0 0%	4 5%	11 4%	15 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 3%	0 1%	0 0%	0 0%	0 0%	14 2%	0 0%	19 4%
2008	1062	3,4,5,6	16 5%	0 2%	1 2%	7 3%	4 6%	0 8%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 5%	0 0%	47 9%
2009	1545	4,5,6	25 8%	1 1%	3 0%	8 6%	3 2%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 9%	0 0%	44 5%
1979-2009	930		22 5%	0 5%	2 1%	11 7%	2 3%	4 2%	0 2%	0 0%	0 0%	0 3%	0 3%	0 0%	0 4%	0 0%	0 2%	0 1%	0 4%	0 0%	17 9%	0 2%	36 7%
1979-1984	179		22 3%	0 8%	0 0%	18 2%	1 0%	9 7%	0 0%	0 0%	0 0%	0 4%	1 4%	0 0%	1 2%	0 0%	0 0%	0 5%	0 9%	0 0%	24 0%	0 0%	19 7%
1985-1995	798		20 7%	0 7%	0 9%	13 2%	1 3%	6 6%	0 2%	0 0%	0 0%	0 6%	0 4%	0 0%	0 1%	0 0%	0 2%	0 0%	0 8%	0 0%	17 1%	0 0%	37 0%
1996-1998	818		27 2%	0 1%	1 5%	9 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	15 7%	1 6%	43 9%
1999-2009	1366		23 2%	0 2%	4 2%	8 5%	4 3%	1 0%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	0 4%	0 0%	0 2%	0 0%	0 0%	0 0%	17 0%	0 0%	40 6%

Appendix C.47. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1558	2,3,4,5	4 7%	5 0%	0 7%	5 4%	3 0%	0 0%	0 0%	2 5%	4 2%	10 1%	23 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	41 4%
1980	1573	2,3,4,5,6	14 6%	5 0%	2 9%	10 4%	5 2%	0 0%	0 0%	1 6%	5 2%	16 3%	21 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 4%
1981	1583	2,3,4,5,6	11 0%	2 4%	1 6%	12 8%	6 5%	0 6%	0 0%	2 1%	9 9%	12 3%	17 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	23 7%
1982	1124	2,3,4,5,6	16 2%	7 0%	5 0%	8 3%	2 2%	0 4%	0 0%	0 0%	3 8%	6 3%	26 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	24 2%
1983	1142	2,3,4,5,6	21 1%	1 5%	0 3%	14 4%	2 7%	0 7%	0 0%	0 3%	4 5%	11 6%	25 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	17 5%
1984	1177	2,3,4,5,6	14 2%	5 9%	4 6%	6 3%	4 0%	0 8%	0 0%	0 9%	6 8%	4 9%	21 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 3%
1985	1577	2,3,4,5,6	25 7%	5 8%	4 3%	5 1%	1 0%	0 1%	0 0%	0 0%	4 1%	3 6%	19 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	30 9%
1986	1559	2,3,4,5,6	13 8%	4 3%	2 8%	6 6%	2 9%	0 0%	0 0%	0 1%	6 1%	7 2%	26 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 0%
1987	1320	2,3,4,5,6	10 7%	3 6%	2 8%	6 3%	6 5%	0 4%	0 4%	0 2%	3 9%	6 1%	24 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	34 8%
1988	1546	2,3,4,5,6	18 6%	1 8%	1 2%	6 5%	2 8%	0 7%	0 9%	0 2%	3 5%	2 4%	9 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	51 7%
1989	1665	2,3,4,5,6	12 6%	2 8%	2 8%	3 9%	3 2%	0 3%	0 0%	0 0%	7 3%	1 9%	17 9%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	47 1%
1990	1136	2,3,4,5,6	16 0%	2 0%	0 5%	6 2%	8 3%	1 3%	0 0%	1 6%	1 8%	4 6%	14 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 0%
1991	771	2,3,4,5,6	10 4%	2 9%	1 4%	5 8%	12 3%	0 5%	0 8%	0 6%	3 9%	9 3%	14 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	37 9%
1992	599	2,3,4,5,6	12 0%	0 5%	2 5%	10 5%	6 5%	0 3%	0 0%	0 3%	3 3%	9 7%	10 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	43 9%
1993	335	2,3,4,5,6	7 8%	3 3%	1 2%	5 7%	8 7%	1 2%	0 0%	0 6%	9 9%	5 7%	22 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	33 4%
1994	302	2,3,4,5,6	5 3%	6 0%	4 0%	9 3%	5 0%	0 0%	0 0%	0 0%	6 0%	1 3%	17 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	45 4%
1995	234	2,3,4,5,6	7 3%	4 7%	0 0%	9 4%	6 4%	0 0%	0 0%	0 0%	6 8%	0 0%	15 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	49 6%
1996	260	2,3,4,5,6	6 5%	0 4%	0 0%	0 0%	4 2%	0 0%	0 0%	0 0%	6 2%	0 0%	16 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	66 2%
1997	423	2,3,4,5,6	9 2%	3 3%	2 6%	4 0%	6 9%	0 7%	5 2%	0 0%	9 0%	3 5%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 2%
1998	550	2,3,4,5,6	14 0%	2 2%	2 0%	0 0%	8 0%	0 0%	0 0%	0 0%	5 5%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	67 8%
1999	901	2,3,4,5,6	7 9%	3 1%	3 9%	2 0%	18 0%	0 0%	0 0%	0 0%	1 4%	0 3%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	62 0%
2000	780	2,3,4,5,6	12 8%	2 2%	4 9%	0 4%	5 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	71 3%
2001	1215	2,3,4,5,6	9 7%	1 4%	1 8%	0 1%	4 3%	0 0%	0 0%	0 0%	1 7%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	80 9%
2002	886	2,3,4,5,6	14 8%	3 2%	0 9%	0 6%	11 2%	0 0%	0 0%	0 0%	2 3%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 0%
2003	481	2,3,4,5,6	17 7%	1 7%	0 8%	0 0%	20 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 5%
2004	713	2,3,4,5,6	8 7%	14 2%	1 7%	0 3%	14 4%	0 0%	0 0%	0 0%	0 7%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 0%
2005	862	2,3,4,5,6	17 2%	2 8%	2 8%	0 3%	14 6%	0 0%	0 0%	0 0%	1 3%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 0%
2006	791	2,3,4,5,6	16 1%	4 7%	1 1%	0 8%	7 7%	0 0%	0 8%	0 0%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 7%
2007	566	2,3,4,5,6	19 8%	2 8%	1 1%	3 2%	12 5%	0 0%	0 0%	0 0%	6 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 9%
2008	388	2,3,4,5,6	10 6%	1 3%	0 3%	0 8%	7 5%	0 0%	0 0%	0 0%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 8%
2009	403	2,3,4,5,6	11 2%	5 0%	2 0%	0 7%	10 4%	0 0%	1 5%	0 0%	7 9%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%
1979-2009	917		12 8%	3 6%	2 1%	4 7%	7 5%	0 3%	0 3%	0 4%	4 7%	3 8%	11 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 5%
1979-1984	1360		13 6%	4 5%	2 5%	9 6%	3 9%	0 4%	0 0%	1 2%	5 7%	10 2%	22 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 8%
1985-1995	1004		12 7%	3 4%	2 1%	6 8%	5 8%	0 4%	0 2%	0 3%	5 1%	4 7%	17 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	40 7%
1996-1998	411		9 9%	2 0%	1 5%	1 3%	6 4%	0 2%	1 7%	0 0%	6 9%	1 2%	6 4%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	62 4%
1999-2009	726		13 3%	3 8%	1 9%	0 8%	11 4%	0 0%	0 2%	0 0%	3 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 9%

Appendix C.48. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	1701	2,3,4,5	5.5%	4.9%	1.1%	6.7%	3.0%	0.1%	0.0%	2.4%	4.1%	11.7%	22.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	37.9%
1980	1721	2,3,4,5,6	14.8%	4.8%	3.2%	11.0%	5.1%	0.0%	0.0%	1.5%	5.1%	17.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.9%
1981	1709	2,3,4,5,6	11.1%	2.3%	1.8%	13.9%	6.7%	0.6%	0.0%	2.1%	9.8%	13.0%	16.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.9%
1982	1272	2,3,4,5,6	18.8%	6.9%	5.4%	8.8%	2.2%	0.4%	0.0%	0.0%	3.6%	6.7%	25.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.4%
1983	1322	2,3,4,5,6	24.8%	1.4%	0.3%	14.5%	2.9%	0.7%	0.0%	0.2%	4.2%	11.6%	24.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.1%
1984	1276	2,3,4,5,6	16.1%	5.9%	5.3%	6.5%	4.1%	0.9%	0.0%	0.9%	6.7%	5.0%	20.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.0%
1985	1827	2,3,4,5,6	27.0%	11.1%	4.3%	4.8%	1.0%	0.1%	0.0%	0.0%	3.8%	3.4%	17.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	26.7%
1986	1892	2,3,4,5,6	14.2%	10.7%	3.2%	6.7%	3.0%	0.0%	0.0%	0.2%	5.4%	7.3%	24.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.7%
1987	1596	2,3,4,5,6	13.9%	8.8%	2.9%	7.1%	5.9%	0.4%	0.3%	0.2%	3.4%	7.0%	21.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.8%
1988	1661	2,3,4,5,6	18.9%	3.4%	1.3%	7.0%	3.1%	0.8%	0.9%	0.2%	3.8%	2.6%	9.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	48.2%
1989	1906	2,3,4,5,6	13.4%	9.0%	2.8%	4.0%	3.1%	0.3%	0.0%	0.0%	7.6%	2.0%	16.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	41.2%
1990	1270	2,3,4,5,6	17.5%	4.1%	0.6%	6.9%	8.4%	1.4%	0.0%	1.7%	1.9%	5.0%	14.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.4%
1991	864	2,3,4,5,6	11.3%	6.3%	1.5%	6.3%	11.9%	0.6%	0.7%	0.7%	4.1%	10.0%	13.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.8%
1992	685	2,3,4,5,6	15.2%	2.2%	2.6%	11.1%	6.6%	0.3%	0.0%	0.4%	3.4%	9.9%	9.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.4%
1993	386	2,3,4,5,6	8.5%	6.2%	1.3%	6.5%	8.5%	1.3%	0.0%	0.8%	10.6%	6.5%	20.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.0%
1994	360	2,3,4,5,6	6.4%	14.4%	3.9%	9.4%	4.7%	0.0%	0.0%	0.0%	6.1%	1.4%	15.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.1%
1995	291	2,3,4,5,6	8.6%	7.9%	0.0%	11.3%	6.9%	0.0%	0.0%	0.0%	6.5%	0.0%	18.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	39.9%
1996	287	2,3,4,5,6	7.3%	0.7%	0.0%	1.4%	4.2%	0.0%	0.0%	0.0%	7.0%	0.0%	19.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.9%
1997	486	2,3,4,5,6	10.3%	5.1%	3.1%	4.3%	8.2%	0.8%	4.9%	0.0%	9.5%	3.7%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	46.3%
1998	609	2,3,4,5,6	15.4%	3.8%	2.3%	0.0%	10.2%	0.0%	0.0%	0.0%	6.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	61.2%
1999	1018	2,3,4,5,6	9.4%	4.7%	4.8%	2.2%	20.4%	0.0%	0.0%	0.0%	1.6%	0.4%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.9%
2000	854	2,3,4,5,6	14.3%	3.0%	5.5%	0.4%	6.1%	0.0%	0.0%	0.0%	3.2%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.1%
2001	1272	2,3,4,5,6	10.8%	2.0%	2.0%	0.1%	5.3%	0.0%	0.0%	0.0%	1.9%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	77.3%
2002	950	2,3,4,5,6	15.8%	4.0%	0.9%	0.6%	13.6%	0.0%	0.0%	0.0%	2.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%
2003	545	2,3,4,5,6	20.0%	2.4%	0.9%	0.0%	23.9%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.5%
2004	851	2,3,4,5,6	8.6%	20.3%	1.8%	0.2%	17.4%	0.0%	0.0%	0.0%	0.7%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	49.5%
2005	940	2,3,4,5,6	18.2%	3.4%	3.0%	0.4%	17.4%	0.0%	0.0%	0.0%	1.4%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%
2006	844	2,3,4,5,6	17.5%	5.8%	1.3%	0.7%	8.6%	0.0%	0.8%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.7%
2007	630	2,3,4,5,6	21.0%	4.8%	1.1%	3.2%	14.3%	0.0%	0.0%	0.0%	6.3%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.4%
2008	407	2,3,4,5,6	12.0%	2.5%	0.2%	0.7%	8.1%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%
2009	423	2,3,4,5,6	11.6%	6.1%	1.9%	0.7%	11.6%	0.0%	1.4%	0.0%	8.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.0%
1979-2009	1028		14.1%	5.8%	2.3%	5.1%	8.3%	0.3%	0.3%	0.4%	4.8%	4.0%	11.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.5%
1979-1984	1500		15.2%	4.4%	2.9%	10.2%	4.0%	0.4%	0.0%	1.2%	5.6%	10.9%	21.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.4%
1985-1995	1158		14.1%	7.7%	2.2%	7.4%	5.7%	0.5%	0.2%	0.4%	5.1%	5.0%	16.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.2%
1996-1998	461		11.0%	3.2%	1.8%	1.9%	7.5%	0.3%	1.6%	0.0%	7.5%	1.2%	7.9%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	56.8%
1999-2009	794		14.5%	5.4%	2.1%	0.8%	13.3%	0.0%	0.2%	0.0%	3.2%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.6%

Appendix C.49. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	4911	2,3,4,5	17 9%	0 8%	0 7%	11 5%	0 3%	8 1%	0 1%	0 5%	1 2%	10 9%	10 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	5 1%	32 6%
1980	4616	2,3,4,5	26 9%	7 0%	0 9%	8 1%	0 1%	7 0%	0 4%	0 0%	0 1%	8 3%	5 5%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	10 2%	3 0%	22 5%
1981	2219	2,3,4,5	29 7%	1 6%	0 8%	12 1%	0 5%	5 3%	0 7%	0 0%	0 6%	8 2%	5 8%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	12 6%	5 0%	16 5%
1982	3176	2,3,4,5	25 0%	3 4%	1 5%	13 5%	0 1%	5 8%	0 4%	0 0%	0 9%	7 5%	6 4%	0 0%	0 1%	0 0%	0 0%	0 6%	0 2%	0 0%	13 5%	6 0%	15 3%
1983	2537	2,3,4,5	36 0%	3 3%	0 6%	10 5%	0 3%	5 2%	0 0%	0 0%	0 3%	8 0%	3 1%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	17 5%	4 6%	10 4%
1984	1963	2,3,4,5	26 6%	4 0%	0 0%	14 6%	0 0%	6 9%	0 0%	0 0%	0 8%	3 0%	3 2%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	17 3%	15 9%	7 6%
1985	916	2,3,4,5	14 1%	5 8%	0 0%	17 8%	0 0%	2 1%	0 0%	0 0%	0 8%	0 5%	6 6%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	1 5%	17 7%	31 2%
1986	546	2,3,4,5	13 9%	4 6%	0 0%	8 1%	0 7%	4 4%	0 9%	0 0%	0 0%	1 1%	4 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 4%	25 6%	35 0%
1987	1399	2,3,4,5	6 5%	1 5%	0 6%	6 1%	0 5%	2 2%	0 1%	0 0%	0 5%	2 9%	3 5%	0 0%	0 0%	0 0%	0 0%	0 3%	0 1%	0 0%	0 0%	20 8%	54 3%
1988	2543	2,3,4,5	9 9%	2 1%	0 9%	6 6%	1 1%	4 1%	4 7%	0 0%	0 6%	1 2%	2 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	7 9%	13 9%	44 4%
1989	3995	2,3,4,5	8 0%	2 5%	0 4%	7 8%	1 0%	1 6%	1 7%	0 0%	0 8%	0 8%	2 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	19 3%	16 9%	36 9%
1990	6288	2,3,4,5	15 8%	1 1%	1 3%	7 4%	0 9%	6 3%	2 0%	0 0%	0 3%	2 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	9 8%	8 8%	41 9%
1991	9369	2,3,4,5	16 9%	1 1%	3 0%	9 1%	0 8%	4 4%	1 1%	0 0%	0 3%	2 7%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	14 3%	12 6%	32 3%
1992	7823	2,3,4,5	13 7%	3 0%	1 7%	7 2%	1 5%	18 8%	2 1%	0 0%	0 1%	3 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 4%	5 9%	41 1%
1993	5736	2,3,4,5	13 9%	1 0%	2 5%	7 1%	1 4%	13 8%	2 6%	0 0%	0 5%	2 0%	1 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	7 5%	13 1%	33 2%
1994	3141	2,3,4,5	15 8%	2 2%	3 7%	9 5%	1 1%	5 3%	4 3%	0 0%	0 4%	1 1%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	12 6%	17 0%	25 6%
1995	1181	2,3,4,5	15 2%	0 0%	4 0%	3 0%	1 9%	1 5%	3 1%	0 0%	1 4%	0 3%	0 4%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	7 1%	9 2%	52 7%
1996	684	2,3,4,5	5 6%	0 1%	1 9%	0 0%	2 8%	0 0%	0 0%	0 0%	1 5%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 4%
1997	2095	2,3,4,5	10 3%	3 1%	3 8%	4 2%	3 0%	0 1%	2 9%	0 0%	0 5%	1 8%	0 4%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	20 3%	43 3%
1998	3193	2,3,4,5	16 0%	1 2%	4 9%	6 1%	2 8%	0 0%	4 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	15 9%	43 8%
1999	1195	2,3,4,5	11 5%	0 4%	7 4%	5 4%	6 5%	0 0%	3 2%	0 0%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	17 7%	40 3%
2000	233	2,3,4,5	5 6%	0 0%	0 0%	0 0%	4 3%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 4%
2001	910	2,3,4,5	3 0%	0 0%	1 6%	0 0%	0 4%	0 0%	2 1%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	89 2%
2002	1899	2,3,4,5	11 1%	0 3%	1 5%	3 5%	3 7%	0 4%	2 9%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 7%	15 1%	53 1%
2003	2751	2,3,4,5	12 5%	1 9%	3 0%	0 7%	4 3%	0 0%	1 7%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 8%	14 2%	52 8%
2004	4610	2,3,4,5	11 8%	7 5%	2 6%	2 4%	4 5%	0 2%	1 3%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	12 6%	12 6%	43 2%
2005	3048	2,3,4,5	13 6%	2 5%	3 6%	2 8%	9 8%	0 0%	1 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	31 7%	8 0%	25 7%
2006	2648	2,3,4,5	9 8%	1 9%	2 4%	2 3%	5 6%	0 0%	3 6%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	26 5%	10 9%	35 6%
2007	2061	2,3,4,5	15 5%	1 6%	3 4%	5 1%	6 7%	0 1%	4 1%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	27 9%	12 6%	22 0%
2008	1493	2,3,4,5	7 6%	0 1%	1 3%	2 3%	5 8%	0 0%	1 2%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 5%	13 1%	45 5%
2009	1295	2,3,4,5	11 7%	6 0%	2 2%	1 9%	10 9%	0 0%	3 9%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 9%	12 7%	42 3%
1979-2009	2919		14 6%	2 3%	2 0%	6 3%	2 7%	3 3%	1 9%	0 0%	0 8%	2 1%	2 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	10 1%	11 5%	40 2%
1979-1984	3237		27 0%	3 3%	0 7%	11 7%	0 2%	6 4%	0 3%	0 1%	0 6%	7 7%	5 7%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	11 8%	6 6%	17 5%
1985-1995	3903		13 1%	2 3%	1 6%	8 1%	1 0%	5 9%	2 1%	0 0%	0 5%	1 6%	2 4%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	7 4%	14 7%	39 0%
1996-1998	1991		10 6%	1 5%	3 5%	3 4%	2 9%	0 0%	2 5%	0 0%	0 9%	0 8%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	12 1%	58 2%
1999-2009	2013		10 3%	2 0%	2 6%	2 4%	5 7%	0 1%	2 3%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	13 6%	10 8%	48 9%

Appendix C.50. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	5637	2,3,4,5	19 9%	0 7%	0 7%	13 0%	0 3%	9 1%	0 1%	0 5%	1 1%	12 1%	9 2%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	4 7%	28 4%
1980	5006	2,3,4,5	27 5%	7 0%	1 0%	8 6%	0 1%	7 5%	0 4%	0 0%	0 1%	8 8%	5 5%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	9 6%	3 0%	20 7%
1981	2628	2,3,4,5	32 0%	1 5%	1 0%	13 2%	0 5%	5 9%	0 6%	0 0%	0 6%	9 0%	5 3%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	11 3%	4 6%	14 0%
1982	3690	2,3,4,5	28 0%	3 2%	1 6%	14 3%	0 1%	6 2%	0 4%	0 0%	0 8%	7 9%	5 9%	0 0%	0 1%	0 0%	0 0%	0 6%	0 2%	0 0%	12 1%	5 6%	13 1%
1983	2860	2,3,4,5	40 1%	3 0%	0 6%	10 2%	0 3%	5 0%	0 0%	0 0%	0 3%	7 7%	2 8%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	16 0%	4 4%	9 2%
1984	2171	2,3,4,5	30 1%	3 7%	0 0%	14 3%	0 0%	6 8%	0 0%	0 0%	0 7%	2 9%	2 9%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	15 9%	15 4%	6 9%
1985	1085	2,3,4,5	15 2%	13 9%	0 0%	16 6%	0 0%	1 9%	0 0%	0 0%	0 7%	0 5%	5 6%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	1 3%	16 0%	26 4%
1986	718	2,3,4,5	17 0%	12 4%	0 0%	8 8%	1 1%	4 5%	0 8%	0 0%	0 0%	1 3%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 3%	21 6%	26 6%
1987	1593	2,3,4,5	9 9%	2 8%	1 1%	7 6%	0 6%	2 7%	0 2%	0 0%	0 5%	3 5%	3 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 1%	0 0%	0 0%	19 8%	47 6%
1988	2810	2,3,4,5	11 0%	3 7%	1 2%	7 4%	1 1%	4 7%	4 9%	0 0%	0 7%	1 4%	2 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 2%	0 0%	7 4%	13 6%	40 1%
1989	4761	2,3,4,5	10 5%	7 6%	0 5%	9 0%	1 0%	1 9%	1 6%	0 0%	0 8%	1 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	17 1%	15 6%	31 0%
1990	7262	2,3,4,5	19 2%	2 3%	1 6%	9 0%	0 9%	6 8%	1 9%	0 0%	0 3%	2 4%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	8 9%	8 2%	36 3%
1991	10516	2,3,4,5	19 8%	1 9%	3 2%	9 9%	0 8%	4 8%	1 0%	0 0%	0 3%	2 9%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	13 2%	12 1%	28 8%
1992	10004	2,3,4,5	15 0%	14 1%	1 6%	7 1%	1 3%	17 6%	1 8%	0 0%	0 1%	2 8%	1 1%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 3%	5 0%	32 1%
1993	6336	2,3,4,5	15 7%	2 0%	2 5%	7 6%	1 4%	14 6%	2 5%	0 0%	0 5%	2 1%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	7 0%	12 7%	30 1%
1994	3494	2,3,4,5	17 5%	5 7%	3 5%	9 2%	1 1%	5 2%	4 2%	0 0%	0 4%	1 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	11 5%	16 3%	23 0%
1995	1292	2,3,4,5	17 2%	0 0%	4 6%	3 6%	2 2%	1 9%	3 3%	0 0%	1 5%	0 4%	0 6%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	6 6%	9 9%	48 1%
1996	793	2,3,4,5	9 2%	0 1%	4 5%	2 8%	2 4%	0 9%	0 0%	0 0%	1 8%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	75 4%
1997	2447	2,3,4,5	13 2%	7 0%	4 3%	4 8%	3 4%	0 2%	2 7%	0 0%	0 6%	2 0%	0 5%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	5 7%	18 6%	37 1%
1998	3350	2,3,4,5	16 4%	1 8%	5 0%	6 1%	3 4%	0 0%	4 7%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	16 2%	41 8%
1999	1262	2,3,4,5	12 3%	0 6%	7 5%	5 4%	7 3%	0 0%	3 3%	0 0%	0 8%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	18 2%	38 1%
2000	243	2,3,4,5	6 6%	0 0%	0 0%	0 0%	6 6%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 8%
2001	955	2,3,4,5	4 3%	0 0%	3 0%	0 0%	0 6%	0 0%	2 4%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	85 0%
2002	2088	2,3,4,5	13 1%	0 4%	1 8%	3 9%	4 5%	0 4%	3 1%	0 0%	0 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	7 3%	15 9%	48 8%
2003	3006	2,3,4,5	13 9%	2 3%	3 5%	0 8%	5 3%	0 0%	2 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	8 4%	15 2%	48 3%
2004	5270	2,3,4,5	12 7%	11 4%	2 8%	2 6%	5 6%	0 1%	1 3%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	11 4%	12 8%	37 8%
2005	3351	2,3,4,5	14 7%	2 9%	4 0%	3 0%	11 9%	0 0%	1 8%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	29 5%	8 1%	23 4%
2006	2889	2,3,4,5	11 5%	3 2%	2 6%	2 6%	6 1%	0 0%	3 7%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 2%	11 0%	32 6%
2007	2273	2,3,4,5	16 8%	2 6%	3 7%	5 3%	8 0%	0 1%	4 3%	0 0%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	25 9%	12 6%	20 0%
2008	1603	2,3,4,5	9 9%	0 2%	1 5%	2 6%	6 1%	0 0%	1 2%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 8%	13 3%	42 4%
2009	1421	2,3,4,5	12 6%	6 6%	2 3%	2 0%	12 5%	0 0%	4 2%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	13 2%	38 6%
1979-2009	3316		16 5%	4 0%	2 3%	6 8%	3 1%	3 5%	1 9%	0 0%	0 9%	2 3%	1 8%	0 0%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	9 3%	11 2%	36 0%
1979-1984	3665		29 6%	3 2%	0 8%	12 3%	0 2%	6 7%	0 3%	0 1%	0 6%	8 1%	5 3%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	10 8%	6 3%	15 4%
1985-1995	4534		15 3%	6 0%	1 8%	8 7%	1 1%	6 0%	2 0%	0 0%	0 5%	1 7%	2 2%	0 0%	0 0%	0 0%	0 0%	0 3%	0 2%	0 0%	6 7%	13 7%	33 7%
1996-1998	2197		12 9%	3 0%	4 6%	4 6%	3 0%	0 3%	2 4%	0 0%	1 0%	0 9%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	12 3%	51 4%
1999-2009	2213		11 7%	2 7%	3 0%	2 6%	6 8%	0 1%	2 5%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 8%	11 1%	45 4%

Appendix C.51. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) reported catch among fisheries and escapement.

			AABM							ISBM													
Catch	Estimated # of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1916	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	83	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	897	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	4953	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	6152	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	357	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	23	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	614	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	1777	2,3,4	0.0%	0.0%	0.0%	0.2%	0.3%	6.8%	1.9%	0.9%	16.3%	0.2%	3.7%	0.0%	7.4%	0.0%	0.0%	36.2%	9.7%	0.0%	0.0%	0.0%	16.5%
1990	2346	2,3,4,5	2.1%	0.0%	0.0%	0.5%	0.0%	18.8%	2.0%	3.4%	9.8%	0.1%	1.5%	0.0%	9.1%	0.0%	0.1%	29.2%	7.4%	0.0%	0.3%	0.0%	15.6%
1991	938	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	13.4%	3.2%	1.7%	9.7%	0.1%	3.0%	0.0%	9.0%	0.0%	0.7%	21.7%	8.8%	0.0%	1.5%	1.3%	25.8%
1992	577	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.5%	11.4%	0.9%	2.1%	12.5%	0.0%	2.3%	0.0%	10.2%	0.0%	0.7%	15.6%	15.8%	0.0%	0.0%	0.7%	27.4%
1993	1041	2,3,4,5	0.0%	0.0%	0.0%	0.3%	0.3%	12.1%	8.5%	2.8%	16.2%	0.2%	2.8%	0.0%	3.9%	0.0%	0.1%	16.5%	12.6%	0.0%	0.0%	0.0%	23.6%
1994	939	2,3,4,5	0.2%	0.0%	0.0%	0.4%	0.0%	12.0%	5.4%	1.2%	12.6%	0.0%	2.3%	0.0%	2.2%	0.0%	0.0%	38.4%	3.5%	0.0%	0.0%	0.4%	21.2%
1995	685	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	5.8%	3.4%	0.0%	5.1%	0.0%	1.0%	0.0%	3.4%	0.0%	0.0%	27.2%	12.7%	0.0%	0.0%	2.3%	38.8%
1996	1110	2,3,4,5	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	10.7%	0.0%	0.4%	0.0%	1.9%	0.0%	0.0%	34.0%	9.6%	0.0%	0.0%	14.5%	28.1%
1997	1317	2,3,4,5	0.5%	0.2%	0.0%	0.3%	0.3%	2.3%	3.6%	0.0%	8.0%	0.7%	0.8%	0.0%	0.9%	0.0%	0.1%	33.8%	9.2%	0.0%	0.0%	0.3%	39.2%
1998	698	2,3,4,5	3.3%	0.0%	0.0%	0.0%	0.0%	1.6%	3.2%	0.0%	10.9%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	43.6%	3.4%	0.0%	0.0%	0.6%	32.8%
1999	248	2,3,4,5	3.6%	0.0%	0.0%	2.0%	3.2%	1.6%	10.1%	0.0%	10.9%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	38.3%	3.6%	0.0%	0.0%	0.0%	25.0%
2000	269	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	12.3%	10.4%	0.0%	6.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	36.8%	1.5%	0.0%	0.0%	0.0%	32.3%
2001	1522	2,3,4,5	0.0%	0.3%	0.0%	0.0%	0.1%	4.7%	5.2%	0.0%	7.6%	0.0%	0.3%	0.0%	2.4%	0.0%	0.1%	39.4%	4.0%	0.0%	0.5%	0.0%	35.5%
2002	1532	2,3,4,5	0.8%	0.0%	0.0%	0.7%	0.0%	8.7%	6.7%	0.0%	7.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.6%	36.4%	4.4%	0.0%	0.3%	0.0%	31.5%
2003	730	2,3,4,5	0.8%	0.0%	0.0%	0.0%	0.0%	13.7%	2.6%	0.0%	5.1%	0.0%	0.3%	0.0%	6.2%	0.0%	0.5%	38.6%	2.2%	0.0%	0.3%	0.0%	29.7%
2004	494	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.0%	7.7%	6.3%	0.0%	4.9%	0.0%	0.0%	0.0%	10.5%	0.0%	0.4%	30.0%	5.7%	0.0%	1.8%	0.0%	32.4%
2005	637	2,3,4,5	0.3%	0.2%	0.0%	0.3%	0.0%	11.3%	7.5%	0.0%	12.7%	0.0%	0.0%	0.0%	7.1%	0.0%	0.8%	33.8%	3.8%	0.0%	0.9%	0.0%	21.4%
2006	1435	2,3,4,5	0.8%	0.1%	0.0%	0.1%	0.0%	8.3%	5.4%	0.0%	5.5%	0.0%	0.0%	0.0%	6.2%	0.0%	1.2%	51.2%	5.6%	0.0%	0.5%	0.0%	15.1%
2007	1790	2,3,4,5	0.5%	0.0%	0.0%	0.0%	0.0%	9.7%	4.8%	0.0%	6.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.4%	30.7%	3.3%	0.0%	0.5%	18.3%	23.1%
2008	1589	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.0%	6.2%	4.6%	0.0%	5.5%	0.0%	0.0%	0.0%	3.8%	0.0%	0.3%	44.0%	7.9%	0.0%	0.3%	0.0%	27.2%
2009	1462	2,3,4,5	0.0%	0.1%	0.0%	0.0%	0.0%	3.1%	5.1%	0.0%	3.1%	0.0%	0.0%	0.0%	3.2%	0.0%	0.2%	33.8%	7.6%	0.0%	0.6%	0.0%	43.2%
1979-2009	1102		0.7%	0.0%	0.0%	0.2%	0.2%	8.2%	4.8%	0.6%	8.9%	0.1%	0.9%	0.0%	4.6%	0.0%	0.3%	33.8%	6.8%	0.0%	0.4%	1.8%	27.9%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	1186		0.4%	0.0%	0.0%	0.2%	0.2%	11.5%	3.6%	1.7%	11.7%	0.1%	2.4%	0.0%	6.5%	0.0%	0.2%	26.4%	10.1%	0.0%	0.3%	0.7%	24.1%
1996-1998	1042		1.3%	0.1%	0.0%	0.1%	0.1%	1.3%	2.5%	0.0%	9.9%	0.2%	0.4%	0.0%	1.2%	0.0%	0.0%	37.1%	7.4%	0.0%	0.0%	5.1%	33.4%
1999-2009	1064		0.7%	0.1%	0.0%	0.3%	0.3%	7.9%	6.2%	0.0%	6.8%	0.0%	0.1%	0.0%	4.3%	0.0%	0.4%	37.5%	4.5%	0.0%	0.5%	1.7%	28.8%

Appendix C.52. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1972	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	83	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	1576	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	5514	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	6392	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	389	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	67	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	933	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	2042	2,3,4	0 0%	0 0%	0 0%	0 2%	0 2%	9 1%	1 8%	1 3%	17 1%	0 2%	3 3%	0 0%	8 0%	0 0%	0 0%	33 3%	11 0%	0 0%	0 0%	0 0%	14 3%
1990	2548	2,3,4,5	2 2%	0 0%	0 0%	0 5%	0 0%	20 2%	2 0%	3 5%	10 2%	0 1%	1 5%	0 0%	9 4%	0 0%	0 1%	27 4%	8 1%	0 0%	0 3%	0 0%	14 4%
1991	1025	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	14 5%	3 2%	2 0%	10 4%	0 1%	2 9%	0 0%	9 4%	0 0%	0 8%	20 4%	10 0%	0 0%	1 4%	1 3%	23 6%
1992	724	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 6%	11 6%	0 8%	2 5%	12 8%	0 0%	1 9%	0 0%	9 9%	0 0%	0 7%	14 2%	22 4%	0 0%	0 0%	0 7%	21 8%
1993	1222	2,3,4,5	0 0%	0 0%	0 0%	0 3%	0 3%	13 8%	8 0%	3 8%	17 9%	0 2%	2 5%	0 0%	4 1%	0 0%	0 1%	15 3%	13 5%	0 0%	0 0%	0 0%	20 1%
1994	1034	2,3,4,5	0 5%	0 0%	0 0%	0 5%	0 0%	13 2%	5 5%	1 4%	13 7%	0 0%	2 3%	0 0%	2 1%	0 0%	0 0%	36 9%	4 2%	0 0%	0 0%	0 4%	19 2%
1995	823	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	7 3%	3 3%	0 0%	5 3%	0 0%	1 6%	0 0%	3 0%	0 0%	0 0%	24 3%	20 4%	0 0%	0 0%	2 2%	32 3%
1996	1362	2,3,4,5	0 0%	0 1%	0 0%	0 1%	0 0%	1 0%	0 7%	0 0%	11 4%	0 0%	0 5%	0 0%	1 7%	0 0%	0 0%	32 6%	14 3%	0 0%	0 0%	14 8%	22 9%
1997	1443	2,3,4,5	0 6%	0 4%	0 0%	0 3%	0 3%	2 8%	3 5%	0 0%	9 1%	0 8%	1 0%	0 0%	1 0%	0 0%	0 1%	32 8%	11 0%	0 0%	0 0%	0 3%	35 8%
1998	735	2,3,4,5	3 4%	0 0%	0 0%	0 0%	0 0%	1 5%	3 3%	0 0%	11 8%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	42 6%	4 9%	0 0%	0 0%	0 5%	31 2%
1999	278	2,3,4,5	4 3%	0 0%	0 0%	2 2%	3 6%	1 4%	10 4%	0 0%	12 2%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	36 0%	5 8%	0 0%	0 0%	0 0%	22 3%
2000	342	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	10 2%	0 0%	6 7%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	39 5%	6 7%	0 0%	0 0%	0 0%	25 4%
2001	1718	2,3,4,5	0 0%	0 5%	0 0%	0 0%	0 1%	4 5%	5 4%	0 0%	8 7%	0 0%	0 6%	0 0%	2 7%	0 0%	0 1%	37 9%	7 8%	0 0%	0 4%	0 0%	31 5%
2002	1628	2,3,4,5	0 9%	0 0%	0 0%	0 7%	0 0%	8 5%	7 3%	0 0%	7 6%	0 0%	0 0%	0 0%	2 9%	0 0%	0 6%	35 4%	6 1%	0 0%	0 3%	0 0%	29 7%
2003	768	2,3,4,5	0 9%	0 0%	0 0%	0 0%	0 0%	13 8%	3 1%	0 0%	5 7%	0 0%	0 3%	0 0%	6 6%	0 0%	0 5%	37 4%	3 1%	0 0%	0 3%	0 0%	28 3%
2004	554	2,3,4,5	0 5%	0 0%	0 0%	0 0%	0 0%	7 4%	6 7%	0 0%	5 4%	0 0%	0 0%	0 0%	11 9%	0 0%	0 4%	28 5%	8 7%	0 0%	1 6%	0 0%	28 9%
2005	740	2,3,4,5	0 4%	0 1%	0 0%	0 4%	0 0%	10 9%	8 0%	0 0%	14 1%	0 0%	0 0%	0 0%	7 6%	0 0%	0 8%	31 4%	7 2%	0 0%	0 8%	0 0%	18 4%
2006	1611	2,3,4,5	0 9%	0 1%	0 0%	0 2%	0 0%	7 9%	5 6%	0 0%	6 3%	0 0%	0 0%	0 0%	6 8%	0 0%	1 2%	50 0%	7 2%	0 0%	0 4%	0 0%	13 4%
2007	2028	2,3,4,5	0 6%	0 0%	0 0%	0 0%	0 0%	9 5%	5 0%	0 0%	6 6%	0 0%	0 0%	0 0%	3 0%	0 0%	0 4%	29 2%	6 3%	0 0%	0 4%	18 7%	20 4%
2008	1772	2,3,4,5	0 2%	0 0%	0 0%	0 0%	0 0%	6 0%	4 8%	0 0%	6 4%	0 0%	0 0%	0 0%	4 2%	0 0%	0 3%	43 1%	10 3%	0 0%	0 3%	0 0%	24 4%
2009	1779	2,3,4,5	0 0%	0 1%	0 0%	0 0%	0 0%	3 0%	5 2%	0 0%	3 4%	0 0%	0 0%	0 0%	3 3%	0 0%	0 2%	32 2%	16 7%	0 0%	0 5%	0 0%	35 5%
1979-2009	1246		0 7%	0 1%	0 0%	0 3%	0 2%	8 5%	4 9%	0 7%	9 7%	0 1%	0 9%	0 0%	4 8%	0 0%	0 3%	32 4%	9 8%	0 0%	0 3%	1 9%	24 5%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	1345		0 4%	0 0%	0 0%	0 2%	0 2%	12 8%	3 5%	2 0%	12 5%	0 1%	2 3%	0 0%	6 6%	0 0%	0 2%	24 5%	12 8%	0 0%	0 2%	0 6%	20 8%
1996-1998	1180		1 3%	0 2%	0 0%	0 1%	0 1%	1 7%	2 5%	0 0%	10 8%	0 3%	0 5%	0 0%	1 2%	0 0%	0 0%	36 0%	10 1%	0 0%	0 0%	5 2%	29 9%
1999-2009	1202		0 8%	0 1%	0 0%	0 3%	0 3%	7 6%	6 5%	0 0%	7 6%	0 0%	0 1%	0 0%	4 6%	0 0%	0 4%	36 4%	7 8%	0 0%	0 5%	1 7%	25 3%

Appendix C.53. Percent distribution of Lower Shuswap River Summer (Fraser Early) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	12	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	197	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	597	2,3,4	11 7%	0 0%	1 7%	25 0%	5 0%	11 6%	0 0%	0 5%	1 3%	14 4%	15 1%	0 0%	0 0%	0 0%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	8 5%
1995	291	2,3,4,5	17 9%	0 0%	5 5%	13 4%	11 7%	4 1%	0 0%	0 0%	2 1%	1 0%	8 9%	0 0%	0 0%	0 0%	0 0%	5 8%	0 0%	0 0%	0 3%	1 0%	28 2%
1996	606	2,3,4,5	15 3%	0 0%	0 0%	0 0%	3 6%	0 0%	1 2%	0 0%	3 0%	0 0%	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	1 3%	66 2%
1997	342	2,3,4,5	17 8%	0 9%	0 0%	12 0%	5 8%	0 6%	0 0%	0 0%	7 0%	1 2%	32 7%	0 0%	0 0%	0 0%	0 0%	4 1%	0 0%	0 0%	0 3%	0 0%	17 5%
1998	671	2,3,4,5	20 6%	0 1%	8 0%	8 8%	14 2%	0 0%	0 7%	0 0%	5 8%	0 0%	7 9%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 7%	0 7%	31 4%
1999	354	2,3,4,5	27 7%	0 0%	12 7%	1 4%	13 0%	0 0%	0 0%	0 0%	5 6%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 8%	27 4%
2000	651	2,3,4,5	9 4%	0 0%	6 6%	0 0%	3 5%	0 0%	0 0%	0 0%	3 4%	0 0%	6 9%	0 0%	0 0%	0 0%	0 5%	0 2%	0 0%	0 0%	0 5%	1 4%	67 7%
2001	1099	2,3,4,5	5 8%	0 6%	0 3%	0 0%	4 0%	0 0%	0 0%	0 1%	4 3%	0 9%	0 7%	0 0%	0 1%	0 0%	0 0%	0 2%	0 0%	0 0%	1 2%	5 0%	76 8%
2002	1412	2,3,4,5	16 5%	0 0%	3 0%	11 7%	5 8%	1 6%	0 0%	0 0%	2 6%	0 1%	8 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 5%	48 7%
2003	1537	2,3,4,5	10 1%	0 7%	2 0%	8 1%	5 2%	0 0%	0 3%	0 0%	5 2%	0 8%	4 2%	0 0%	0 4%	0 0%	0 0%	0 6%	0 0%	0 0%	1 3%	1 8%	59 3%
2004	1047	2,3,4,5	16 3%	0 0%	1 9%	8 4%	8 2%	0 9%	0 0%	0 0%	4 0%	0 0%	12 4%	0 0%	0 3%	0 0%	0 0%	1 1%	0 0%	0 0%	0 5%	2 1%	43 8%
2005	749	2,3,4,5	13 4%	0 0%	0 8%	10 9%	15 0%	0 4%	3 1%	0 0%	4 0%	0 0%	7 5%	0 0%	0 3%	0 0%	0 0%	0 4%	0 0%	0 0%	0 1%	3 9%	40 3%
2006	1228	2,3,4,5	11 6%	0 0%	2 0%	12 9%	12 0%	0 3%	0 9%	0 0%	6 6%	0 0%	6 8%	0 0%	0 2%	0 0%	0 0%	0 8%	0 0%	0 0%	0 6%	3 0%	42 1%
2007	405	2,3,4,5	6 2%	0 2%	3 2%	2 7%	6 4%	0 0%	0 7%	0 0%	3 5%	0 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 9%	67 4%
2008	1568	2,3,4,5	6 3%	0 0%	0 3%	6 3%	7 7%	0 0%	1 4%	0 0%	4 4%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	3 2%	67 5%
2009	1526	2,3,4,5	7 7%	0 0%	1 0%	5 6%	5 2%	0 7%	2 2%	0 0%	6 1%	0 0%	8 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 8%	6 4%	55 8%
1979-2009	880		13 4%	0 2%	3 1%	8 0%	7 9%	1 3%	0 7%	0 0%	4 3%	1 1%	9 1%	0 0%	0 1%	0 0%	0 0%	1 2%	0 0%	0 0%	0 6%	2 3%	46 8%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	444		14 8%	0 0%	3 6%	19 2%	8 4%	7 8%	0 0%	0 3%	1 7%	7 7%	12 0%	0 0%	0 0%	0 0%	0 0%	5 5%	0 0%	0 0%	0 2%	0 5%	18 4%
1996-1998	540		17 9%	0 3%	2 7%	6 9%	7 9%	0 2%	0 6%	0 0%	5 3%	0 4%	16 5%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 6%	0 7%	38 4%
1999-2009	1052		11 9%	0 1%	3 1%	6 2%	7 8%	0 4%	0 8%	0 0%	4 5%	0 2%	6 5%	0 0%	0 1%	0 0%	0 0%	0 3%	0 0%	0 0%	0 7%	3 1%	54 3%

Appendix C.54. Percent distribution of Lower Shuswap River Summer (Fraser Early) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	79	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	267	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	655	2,3,4	14 7%	0 0%	1 8%	24 3%	5 3%	11 1%	0 0%	0 5%	1 5%	13 7%	14 4%	0 0%	0 0%	0 0%	0 0%	4 9%	0 0%	0 0%	0 0%	0 0%	7 8%
1995	385	2,3,4,5	22 9%	0 0%	5 2%	15 6%	10 9%	4 7%	0 0%	0 0%	2 1%	1 0%	10 1%	0 0%	0 0%	0 0%	0 0%	5 2%	0 0%	0 0%	0 3%	0 8%	21 3%
1996	649	2,3,4,5	18 5%	0 0%	0 0%	0 5%	3 5%	0 3%	1 2%	0 0%	3 4%	0 0%	8 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	1 4%	61 8%
1997	416	2,3,4,5	20 2%	1 4%	0 0%	12 3%	6 5%	0 7%	0 0%	0 0%	7 2%	1 2%	31 7%	0 0%	0 0%	0 0%	0 0%	4 1%	0 0%	0 0%	0 2%	0 0%	14 4%
1998	772	2,3,4,5	21 0%	0 1%	8 7%	8 9%	16 5%	0 0%	0 8%	0 0%	6 1%	0 0%	8 4%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 6%	0 6%	27 3%
1999	412	2,3,4,5	32 0%	0 0%	13 1%	1 5%	13 3%	0 0%	0 0%	0 0%	5 8%	0 0%	9 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 7%	23 5%
2000	730	2,3,4,5	11 0%	0 0%	9 9%	0 0%	5 2%	0 0%	0 0%	0 0%	3 8%	0 0%	7 3%	0 0%	0 0%	0 0%	0 5%	0 1%	0 0%	0 0%	0 4%	1 4%	60 4%
2001	1198	2,3,4,5	7 9%	1 0%	0 3%	0 0%	5 0%	0 0%	0 0%	0 1%	5 2%	2 4%	1 3%	0 0%	0 1%	0 0%	0 0%	0 2%	0 0%	0 0%	1 2%	4 9%	70 5%
2002	1543	2,3,4,5	18 3%	0 0%	3 4%	12 8%	7 0%	1 5%	0 0%	0 0%	2 9%	0 1%	8 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 5%	44 6%
2003	1652	2,3,4,5	11 1%	1 0%	2 3%	9 0%	6 2%	0 0%	0 3%	0 0%	5 8%	1 1%	4 0%	0 0%	0 4%	0 0%	0 0%	0 7%	0 0%	0 0%	1 3%	1 8%	55 1%
2004	1169	2,3,4,5	17 7%	0 0%	2 3%	9 2%	10 9%	0 8%	0 0%	0 0%	4 4%	0 0%	11 4%	0 0%	0 3%	0 0%	0 0%	1 3%	0 0%	0 0%	0 4%	2 1%	39 3%
2005	832	2,3,4,5	14 5%	0 0%	0 8%	12 3%	16 9%	0 4%	3 1%	0 0%	4 3%	0 0%	6 9%	0 0%	0 2%	0 0%	0 0%	0 4%	0 0%	0 0%	0 1%	3 7%	36 3%
2006	1306	2,3,4,5	12 1%	0 0%	2 1%	13 3%	13 5%	0 3%	1 0%	0 0%	7 0%	0 0%	6 5%	0 0%	0 2%	0 0%	0 0%	0 8%	0 0%	0 0%	0 5%	3 1%	39 6%
2007	482	2,3,4,5	7 9%	0 2%	7 9%	3 3%	10 2%	0 0%	0 8%	0 0%	4 4%	0 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	56 6%
2008	1725	2,3,4,5	8 5%	0 0%	0 5%	7 5%	9 2%	0 0%	1 6%	0 0%	5 3%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	3 1%	61 4%
2009	1656	2,3,4,5	9 4%	0 0%	1 2%	6 6%	5 8%	0 7%	2 3%	0 0%	7 1%	0 0%	8 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 8%	6 3%	51 4%
1979-2009	974		15 5%	0 2%	3 7%	8 6%	9 1%	1 3%	0 7%	0 0%	4 8%	1 2%	8 8%	0 0%	0 1%	0 0%	0 0%	1 2%	0 0%	0 0%	0 6%	2 2%	42 0%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	520		18 8%	0 0%	3 5%	19 9%	8 1%	7 9%	0 0%	0 2%	1 8%	7 4%	12 2%	0 0%	0 0%	0 0%	0 0%	5 0%	0 0%	0 0%	0 1%	0 4%	14 5%
1996-1998	612		19 9%	0 5%	2 9%	7 2%	8 8%	0 3%	0 7%	0 0%	5 6%	0 4%	16 3%	0 0%	0 0%	0 0%	0 0%	1 7%	0 0%	0 0%	0 5%	0 7%	34 5%
1999-2009	1155		13 7%	0 2%	4 0%	6 9%	9 4%	0 3%	0 8%	0 0%	5 1%	0 3%	6 2%	0 0%	0 1%	0 0%	0 0%	0 3%	0 0%	0 0%	0 6%	3 0%	49 0%

Appendix C.55. Percent distribution of Skagit Spring Fingerling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	21	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	63	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	38	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	4	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	33	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	467	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	919	2,3,4	1.0%	0.0%	0.0%	0.4%	0.8%	1.5%	5.4%	0.0%	8.6%	0.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.9%	7.2%	0.0%	0.5%	0.0%	71.5%
1998	675	2,3,4,5	1.9%	0.0%	0.0%	0.0%	0.7%	0.0%	5.0%	0.0%	9.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.4%	2.5%	0.0%	1.2%	0.0%	78.2%
1999	1720	2,3,4,5	0.5%	0.6%	0.0%	0.3%	0.7%	2.0%	6.0%	0.0%	4.6%	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.5%	1.6%	0.0%	1.0%	0.0%	81.9%
2000	1109	2,3,4,5	1.5%	0.0%	0.4%	0.0%	0.5%	6.2%	6.9%	0.0%	9.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	2.4%	0.0%	0.1%	0.0%	72.8%
2001	1813	2,3,4,5	1.3%	0.2%	0.3%	0.2%	0.8%	5.6%	3.8%	0.0%	5.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	4.3%	0.0%	0.5%	0.0%	77.2%
2002	1749	2,3,4,5	2.5%	0.0%	0.5%	0.5%	0.7%	6.7%	4.6%	0.0%	6.8%	0.0%	0.1%	0.0%	0.3%	0.0%	0.1%	0.0%	2.5%	0.0%	0.6%	0.0%	74.2%
2003	673	2,3,4,5	2.2%	0.0%	0.9%	1.2%	0.7%	18.3%	0.7%	0.0%	5.3%	0.0%	0.1%	0.0%	1.3%	0.0%	0.0%	0.1%	1.2%	0.0%	0.7%	0.0%	67.0%
2004	1101	2,3,4,5	0.0%	0.0%	0.0%	0.5%	0.0%	11.7%	2.6%	0.0%	6.9%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	1.6%	0.0%	1.4%	0.0%	73.0%
2005	1234	2,3,4,5	1.3%	0.1%	0.0%	0.0%	1.4%	11.0%	5.3%	0.0%	5.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.3%	3.7%	70.7%
2006	1722	2,3,4,5	0.3%	0.1%	0.2%	0.2%	0.5%	6.3%	2.8%	0.0%	5.8%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	2.3%	0.0%	1.0%	19.3%	60.7%
2007	2466	2,3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	9.2%	6.6%	0.0%	6.7%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.3%	2.9%	0.0%	1.3%	19.1%	52.7%
2008	1234	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.3%	4.4%	7.2%	0.0%	5.5%	0.0%	0.2%	0.0%	0.8%	0.0%	0.0%	1.4%	5.5%	0.0%	16.0%	0.0%	58.3%
2009	924	2,3,4,5	0.8%	0.0%	0.0%	0.0%	0.0%	2.7%	5.2%	0.0%	3.7%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	6.1%	0.0%	19.9%	10.3%	50.4%
1979-2009	1334		1.1%	0.1%	0.2%	0.3%	0.5%	6.6%	4.8%	0.0%	6.4%	0.0%	0.2%	0.0%	0.5%	0.0%	0.0%	0.3%	3.1%	0.0%	3.4%	4.0%	68.4%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	797		1.5%	0.0%	0.0%	0.2%	0.8%	0.8%	5.2%	0.0%	9.0%	0.3%	1.1%	0.0%	0.0%	0.0%	0.0%	0.7%	4.9%	0.0%	0.9%	0.0%	74.9%
1999-2009	1431		1.0%	0.1%	0.2%	0.3%	0.5%	7.6%	4.7%	0.0%	5.9%	0.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.3%	2.8%	0.0%	3.8%	4.8%	67.2%

Appendix C.56. Percent distribution of Skagit Spring Fingerling total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	29	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	69	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	38	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	4	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	68	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	538	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	986	2,3,4	1 2%	0 0%	0 0%	0 4%	0 9%	1 9%	5 8%	0 0%	9 7%	0 5%	2 7%	0 0%	0 0%	0 0%	0 0%	0 8%	8 8%	0 0%	0 5%	0 0%	66 6%
1998	729	2,3,4,5	2 1%	0 0%	0 0%	0 0%	1 1%	0 0%	5 5%	0 0%	10 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 4%	6 0%	0 0%	1 1%	0 0%	72 4%
1999	1805	2,3,4,5	0 9%	1 0%	0 0%	0 3%	0 8%	2 0%	6 4%	0 0%	5 7%	0 0%	0 1%	0 0%	0 4%	0 0%	0 0%	0 5%	2 8%	0 0%	1 0%	0 0%	78 1%
2000	1210	2,3,4,5	2 0%	0 0%	0 6%	0 0%	0 6%	6 6%	7 4%	0 0%	10 7%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 1%	5 0%	0 0%	0 1%	0 0%	66 7%
2001	1985	2,3,4,5	1 7%	0 3%	0 4%	0 3%	0 9%	5 4%	4 0%	0 0%	6 2%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 2%	9 5%	0 0%	0 5%	0 0%	70 5%
2002	1829	2,3,4,5	2 8%	0 0%	0 5%	0 5%	0 9%	6 7%	5 1%	0 0%	7 7%	0 0%	0 1%	0 0%	0 3%	0 0%	0 1%	0 0%	3 7%	0 0%	0 5%	0 0%	70 9%
2003	701	2,3,4,5	2 4%	0 0%	1 0%	1 3%	0 9%	18 8%	0 9%	0 0%	6 1%	0 0%	0 1%	0 0%	1 4%	0 0%	0 0%	0 1%	1 9%	0 0%	0 7%	0 0%	64 3%
2004	1159	2,3,4,5	0 0%	0 0%	0 0%	0 5%	0 0%	12 2%	3 0%	0 0%	8 2%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	0 0%	2 7%	0 0%	1 3%	0 0%	69 4%
2005	1302	2,3,4,5	1 6%	0 2%	0 0%	0 0%	1 8%	11 3%	6 1%	0 0%	6 5%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 3%	4 1%	67 0%
2006	1849	2,3,4,5	0 4%	0 1%	0 3%	0 3%	0 5%	6 4%	3 1%	0 0%	6 8%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 5%	3 5%	0 0%	1 0%	20 5%	56 6%
2007	2642	2,3,4,5	0 4%	0 1%	0 0%	0 0%	0 0%	9 0%	6 9%	0 0%	7 6%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 3%	3 8%	0 0%	1 3%	20 6%	49 2%
2008	1303	2,3,4,5	0 5%	0 0%	0 0%	0 0%	0 4%	4 4%	7 9%	0 0%	6 1%	0 0%	0 3%	0 0%	0 9%	0 0%	0 0%	1 4%	7 4%	0 0%	15 6%	0 0%	55 2%
2009	1016	2,3,4,5	0 9%	0 0%	0 0%	0 0%	0 0%	2 8%	5 6%	0 0%	4 2%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	10 0%	0 0%	18 8%	10 7%	45 9%
1979-2009	1424		1 3%	0 1%	0 2%	0 3%	0 7%	6 7%	5 2%	0 0%	7 4%	0 0%	0 4%	0 0%	0 6%	0 0%	0 0%	0 3%	5 1%	0 0%	3 3%	4 3%	64 1%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	858		1 6%	0 0%	0 0%	0 2%	1 0%	1 0%	5 6%	0 0%	10 2%	0 3%	1 7%	0 0%	0 0%	0 0%	0 0%	0 6%	7 4%	0 0%	0 8%	0 0%	69 5%
1999-2009	1527		1 2%	0 1%	0 2%	0 3%	0 6%	7 8%	5 1%	0 0%	6 9%	0 0%	0 1%	0 0%	0 7%	0 0%	0 0%	0 3%	4 6%	0 0%	3 7%	5 1%	63 1%

Appendix C.57. Percent distribution of Skagit Spring Yearling reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	3	2	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	60	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	120	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	29.2%	0.0%	26.7%	0.0%	0.0%	0.0%	0.0%	10.0%	15.8%	0.0%	0.0%	0.0%	11.7%
1986	211	2,3,4,5	1.4%	0.0%	0.0%	0.0%	0.0%	6.2%	5.7%	6.2%	35.5%	4.3%	9.5%	0.0%	0.0%	0.0%	0.0%	3.3%	7.6%	0.0%	0.0%	0.0%	20.4%
1987	109	2,3,4,5	0.0%	0.0%	0.0%	4.6%	0.0%	3.7%	0.0%	0.0%	10.1%	0.0%	11.9%	0.0%	1.8%	0.0%	0.0%	24.8%	20.2%	0.0%	0.0%	0.0%	22.9%
1988	509	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	9.6%	0.4%	14.5%	0.0%	13.6%	0.0%	1.8%	0.0%	0.0%	20.6%	14.5%	0.0%	0.0%	0.0%	23.2%
1989	760	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	1.8%	0.0%	17.5%	0.8%	3.4%	0.0%	4.3%	0.0%	0.0%	12.4%	8.4%	0.0%	18.0%	0.0%	29.9%
1990	675	3,4,5	0.0%	0.0%	0.0%	0.0%	1.0%	4.9%	8.7%	3.1%	11.0%	0.4%	5.9%	0.0%	3.4%	0.0%	0.0%	13.5%	22.7%	0.0%	1.9%	0.0%	23.4%
1991	483	4,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	29	2,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	375	3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	733	4	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	143	2,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	135	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	461	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	12.8%	0.0%	19.1%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	1.3%	20.4%	0.0%	1.1%	0.0%	41.2%
1998	1119	2,3,4,5	0.5%	0.0%	0.0%	0.0%	2.9%	1.3%	10.2%	0.0%	8.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.4%	16.7%	0.0%	0.7%	0.0%	56.4%
1999	2376	2,3,4,5	0.5%	0.0%	0.0%	0.0%	0.3%	4.8%	4.3%	0.0%	7.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	8.7%	0.0%	1.2%	0.0%	72.4%
2000	522	2,3,4,5	0.8%	0.0%	0.0%	0.0%	0.4%	7.1%	3.1%	0.0%	15.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	15.5%	0.0%	0.6%	0.0%	56.5%
2001	251	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	2.4%	0.0%	12.0%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	10.8%	0.0%	2.0%	0.0%	66.1%
2002	271	2,3,4,5	1.1%	0.0%	0.0%	0.0%	0.0%	1.1%	14.8%	0.0%	14.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	8.5%	0.0%	0.7%	0.0%	59.0%
2003	891	2,3,4,5	0.0%	0.0%	0.0%	0.9%	0.3%	20.3%	3.9%	0.0%	9.4%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.6%	7.5%	0.0%	0.2%	0.0%	56.7%
2004	1582	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.4%	13.0%	3.7%	0.0%	5.4%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	4.0%	0.0%	0.8%	0.1%	71.4%
2005	1157	2,3,4,5	1.0%	0.0%	0.0%	0.2%	0.0%	7.6%	5.3%	0.0%	10.4%	0.0%	0.3%	0.0%	0.3%	0.0%	0.3%	0.1%	6.3%	0.0%	1.0%	6.6%	60.8%
2006	717	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.0%	8.8%	6.0%	0.0%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	2.8%	0.0%	1.1%	33.6%	35.8%
2007	754	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	8.4%	0.0%	4.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.3%	1.1%	14.9%	0.0%	0.4%	23.3%	44.0%
2008	547	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	4.6%	0.0%	7.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	10.1%	0.0%	15.9%	0.0%	59.2%
2009	366	2,3,4,5	0.8%	0.0%	0.0%	0.0%	1.1%	1.6%	12.6%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.3%	7.7%	0.0%	18.9%	12.8%	42.6%
1979-2009	705		0.4%	0.0%	0.0%	0.3%	0.3%	5.4%	6.2%	0.5%	12.7%	0.3%	3.9%	0.0%	1.0%	0.0%	0.1%	4.9%	11.7%	0.0%	3.4%	4.0%	44.9%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	397		0.2%	0.0%	0.0%	0.8%	0.2%	4.4%	4.3%	1.6%	19.6%	0.9%	11.8%	0.0%	1.9%	0.0%	0.0%	14.1%	14.9%	0.0%	3.3%	0.0%	21.9%
1996-1998	790		0.3%	0.0%	0.0%	0.0%	1.4%	1.5%	11.5%	0.0%	14.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	1.9%	18.6%	0.0%	0.9%	0.0%	48.8%
1999-2009	858		0.4%	0.0%	0.0%	0.1%	0.2%	6.6%	6.3%	0.0%	8.7%	0.0%	0.0%	0.0%	0.6%	0.0%	0.1%	0.5%	8.8%	0.0%	3.9%	6.9%	56.8%

Appendix C.58. Percent distribution of Skagit Spring Yearling total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	5	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	73	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	130	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	0.0%	0.0%	29.2%	0.0%	25.4%	0.0%	0.0%	0.0%	0.0%	9.2%	18.5%	0.0%	0.0%	0.0%	10.8%
1986	225	2,3,4,5	1.3%	0.0%	0.0%	0.0%	0.0%	6.2%	5.8%	6.2%	35.6%	4.0%	9.3%	0.0%	0.0%	0.0%	0.0%	3.1%	9.3%	0.0%	0.0%	0.0%	19.1%
1987	164	2,3,4,5	0.0%	0.0%	0.0%	4.9%	0.0%	3.0%	0.0%	0.0%	7.3%	0.0%	9.1%	0.0%	1.2%	0.0%	0.0%	19.5%	39.6%	0.0%	0.0%	0.0%	15.2%
1988	580	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	9.3%	0.5%	17.1%	0.0%	12.6%	0.0%	2.1%	0.0%	0.0%	19.5%	16.2%	0.0%	0.0%	0.0%	20.3%
1989	844	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	1.9%	0.0%	19.5%	0.8%	3.4%	0.0%	4.7%	0.0%	0.0%	11.5%	10.4%	0.0%	16.7%	0.0%	26.9%
1990	729	3,4,5	0.0%	0.0%	0.0%	0.0%	1.1%	5.1%	8.6%	3.3%	11.5%	0.4%	5.6%	0.0%	3.7%	0.0%	0.0%	12.9%	24.3%	0.0%	1.8%	0.0%	21.7%
1991	502	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	88	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	416	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	756	4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	175	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	179	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	628	2,3,4	0.3%	0.0%	0.0%	0.0%	0.5%	3.5%	11.3%	0.0%	18.8%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	1.0%	30.1%	0.0%	0.8%	0.0%	30.3%
1998	1233	2,3,4,5	0.6%	0.0%	0.0%	0.0%	3.3%	1.1%	10.0%	0.0%	9.9%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	2.3%	20.6%	0.0%	0.6%	0.0%	51.2%
1999	2512	2,3,4,5	0.7%	0.0%	0.0%	0.0%	0.4%	4.7%	4.4%	0.0%	7.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	12.1%	0.0%	1.2%	0.0%	68.5%
2000	570	2,3,4,5	0.7%	0.0%	0.0%	0.0%	0.5%	6.7%	3.2%	0.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	19.8%	0.0%	0.5%	0.0%	51.8%
2001	315	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.2%	0.0%	11.7%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	26.0%	0.0%	1.6%	0.0%	52.7%
2002	309	2,3,4,5	1.0%	0.0%	0.0%	0.0%	0.0%	1.0%	15.5%	0.0%	16.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	13.3%	0.0%	0.6%	0.0%	51.8%
2003	962	2,3,4,5	0.0%	0.0%	0.0%	0.9%	0.4%	19.9%	4.7%	0.0%	10.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	10.2%	0.0%	0.2%	0.0%	52.5%
2004	1649	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.5%	13.2%	4.1%	0.0%	6.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	5.6%	0.0%	0.8%	0.1%	68.5%
2005	1241	2,3,4,5	1.0%	0.0%	0.0%	0.2%	0.0%	7.5%	5.6%	0.0%	11.6%	0.0%	0.3%	0.0%	0.2%	0.0%	0.2%	0.1%	8.6%	0.0%	0.9%	6.9%	56.7%
2006	791	2,3,4,5	0.5%	0.0%	0.0%	0.0%	0.0%	8.7%	6.4%	0.0%	11.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.5%	4.7%	0.0%	1.0%	33.6%	32.5%
2007	839	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	8.3%	0.0%	5.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.2%	1.0%	18.2%	0.0%	0.4%	24.3%	39.6%
2008	586	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	5.1%	0.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	13.5%	0.0%	15.2%	0.0%	55.3%
2009	403	2,3,4,5	1.0%	0.0%	0.0%	0.0%	1.2%	1.5%	13.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.2%	11.7%	0.0%	17.6%	12.9%	38.7%
1979-2009	774		0.4%	0.0%	0.0%	0.3%	0.4%	5.4%	6.3%	0.5%	13.3%	0.3%	3.7%	0.0%	1.0%	0.0%	0.1%	4.4%	16.5%	0.0%	3.2%	4.1%	40.2%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	445		0.2%	0.0%	0.0%	0.8%	0.2%	4.6%	4.3%	1.7%	20.0%	0.9%	10.9%	0.0%	2.0%	0.0%	0.0%	12.6%	19.7%	0.0%	3.1%	0.0%	19.0%
1996-1998	930		0.5%	0.0%	0.0%	0.0%	1.9%	2.3%	10.6%	0.0%	14.3%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	1.6%	25.3%	0.0%	0.7%	0.0%	40.7%
1999-2009	925		0.5%	0.0%	0.0%	0.1%	0.3%	6.4%	6.6%	0.0%	9.5%	0.0%	0.0%	0.0%	0.6%	0.0%	0.1%	0.4%	13.1%	0.0%	3.6%	7.1%	51.7%

Appendix C.59. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	1	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	103	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	589	2,3,4	0 4%	0 0%	0 0%	0 0%	1 6%	16 7%	3 2%	0 0%	7 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 5%	5 8%	0 0%	0 0%	0 0%	64 5%
2005	511	2,3,4,5	0 8%	0 0%	0 0%	0 4%	0 0%	18 4%	8 0%	0 0%	5 1%	0 0%	0 6%	0 0%	2 9%	0 0%	0 4%	0 0%	2 2%	0 0%	0 0%	0 0%	61 3%
2006	584	2,3,4,5	0 9%	0 0%	0 0%	0 3%	0 0%	14 6%	3 9%	0 0%	6 5%	0 0%	0 2%	0 0%	4 5%	0 0%	0 0%	1 0%	5 0%	0 0%	0 0%	0 0%	63 2%
2007	1104	2,3,4,5	0 5%	0 0%	0 0%	0 2%	1 2%	15 1%	6 3%	0 0%	3 9%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	1 5%	6 3%	0 0%	0 0%	0 0%	62 2%
2008	702	2,3,4,5	0 3%	0 0%	0 0%	0 0%	0 0%	9 3%	2 7%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	5 1%	0 0%	0 0%	0 0%	78 5%
2009	328	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	4 3%	0 0%	4 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	12 2%	0 0%	0 0%	0 0%	76 2%
1979-2009	633		0 5%	0 0%	0 0%	0 2%	0 5%	12 7%	4 7%	0 0%	4 9%	0 0%	0 1%	0 0%	2 0%	0 0%	0 1%	0 8%	6 1%	0 0%	0 0%	0 0%	67 6%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	633		0 5%	0 0%	0 0%	0 2%	0 5%	12 7%	4 7%	0 0%	4 9%	0 0%	0 1%	0 0%	2 0%	0 0%	0 1%	0 8%	6 1%	0 0%	0 0%	0 0%	67 6%

Appendix C.60. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	16	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	130	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	607	2,3,4	0 5%	0 0%	0 0%	0 0%	2 0%	16 5%	3 6%	0 0%	7 7%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 5%	8 2%	0 0%	0 0%	0 0%	60 5%
2005	546	2,3,4,5	0 9%	0 0%	0 0%	0 4%	0 0%	18 5%	9 0%	0 0%	5 7%	0 0%	0 7%	0 0%	3 3%	0 0%	0 5%	0 0%	3 7%	0 0%	0 0%	0 0%	57 3%
2006	641	2,3,4,5	1 2%	0 0%	0 0%	0 3%	0 0%	14 4%	4 2%	0 0%	7 8%	0 0%	0 2%	0 0%	5 1%	0 0%	0 0%	0 9%	8 3%	0 0%	0 0%	0 0%	57 6%
2007	1162	2,3,4,5	0 4%	0 0%	0 0%	0 2%	1 3%	15 0%	6 5%	0 0%	4 6%	0 0%	0 0%	0 0%	3 2%	0 0%	0 0%	1 5%	8 2%	0 0%	0 0%	0 0%	59 1%
2008	727	2,3,4,5	0 3%	0 0%	0 0%	0 0%	0 0%	9 4%	3 0%	0 0%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	7 2%	0 0%	0 0%	0 0%	75 8%
2009	345	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	4 6%	0 0%	4 3%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	14 8%	0 0%	0 0%	0 0%	72 5%
1979-2009	671		0 6%	0 0%	0 0%	0 1%	0 5%	12 7%	5 2%	0 0%	5 5%	0 0%	0 1%	0 0%	2 3%	0 0%	0 1%	0 7%	8 4%	0 0%	0 0%	0 0%	63 8%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	671		0 6%	0 0%	0 0%	0 1%	0 5%	12 7%	5 2%	0 0%	5 5%	0 0%	0 1%	0 0%	2 3%	0 0%	0 1%	0 7%	8 4%	0 0%	0 0%	0 0%	63 8%

Appendix C.61. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	13	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	26	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	158	2,3,4	7 0%	1 3%	0 0%	0 0%	0 0%	1 9%	8 2%	0 0%	0 0%	0 0%	6 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	75 3%
1990	141	3,4,5	9 9%	2 8%	4 3%	14 2%	0 0%	17 7%	0 0%	0 0%	7 1%	1 4%	2 8%	0 0%	1 4%	0 0%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	34 8%
1991	345	2,4,5,6	11 9%	0 0%	0 0%	9 9%	0 0%	5 2%	0 0%	0 0%	0 0%	0 0%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	4 9%	0 0%	0 0%	0 0%	64 3%
1992	295	2,3,5,6	8 5%	0 0%	0 0%	9 5%	0 0%	19 3%	1 7%	0 0%	1 0%	2 0%	3 4%	0 0%	0 3%	0 0%	0 7%	0 0%	1 7%	0 0%	0 0%	0 0%	51 9%
1993	237	2,3,4,6	4 6%	0 0%	0 0%	7 6%	2 1%	16 0%	0 0%	0 0%	0 0%	2 1%	2 1%	0 0%	0 4%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	0 0%	64 1%
1994	200	2,3,4,5	17 0%	3 0%	4 0%	10 5%	1 0%	8 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 5%
1995	153	2,3,4,5,6	8 5%	0 0%	0 0%	4 6%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	73 9%
1996	206	2,3,4,5,6	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	90 3%
1997	289	2,3,4,5,6	10 4%	0 0%	5 2%	5 2%	0 0%	0 0%	2 8%	0 0%	1 4%	0 7%	0 3%	0 0%	1 0%	0 0%	0 0%	2 8%	0 0%	0 0%	20 8%	0 0%	49 5%
1998	267	2,3,4,5,6	9 0%	0 0%	1 5%	17 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	72 3%
1999	226	2,3,4,5,6	11 9%	0 0%	11 9%	6 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	68 6%
2000	84	2,3,4,5,6	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	10 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 9%
2001	295	2,3,4,5,6	6 1%	0 0%	2 0%	0 0%	0 0%	0 0%	2 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 5%
2002	536	2,3,4,5,6	10 6%	0 2%	1 3%	2 8%	3 0%	0 7%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	79 7%
2003	753	2,3,4,5,6	12 1%	0 1%	0 0%	4 8%	2 3%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 7%	0 0%	25 2%	0 0%	53 0%
2004	880	2,3,4,5,6	17 4%	0 5%	2 0%	14 9%	0 0%	0 8%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 3%	0 0%	0 9%	0 0%	61 0%
2005	492	2,3,4,5,6	26 8%	0 0%	2 2%	25 0%	6 9%	1 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 8%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	33 7%
2006	214	2,3,4,5,6	22 9%	1 4%	2 8%	26 6%	1 9%	1 4%	2 8%	0 0%	5 1%	0 0%	0 0%	0 0%	0 5%	0 0%	1 4%	0 0%	1 9%	0 0%	0 0%	0 0%	31 3%
2007	68	2,3,4,5,6	11 8%	0 0%	0 0%	17 6%	10 3%	0 0%	0 0%	0 0%	5 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	54 4%
2008	102	2,3,4,5,6	4 9%	0 0%	0 0%	11 8%	11 8%	0 0%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 8%
2009	155	3,4,5,6	32 3%	3 2%	2 6%	23 9%	11 0%	0 0%	13 5%	0 0%	4 5%	0 0%	0 0%	0 0%	6 5%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%
1979-2009	290		12 0%	0 6%	2 0%	10 1%	2 4%	3 9%	2 5%	0 0%	1 4%	0 3%	0 9%	0 0%	0 6%	0 0%	0 6%	0 2%	0 5%	0 0%	2 4%	0 0%	59 5%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	218		9 6%	1 0%	1 2%	8 0%	0 4%	11 1%	1 4%	0 0%	1 2%	0 9%	2 7%	0 0%	0 3%	0 0%	0 6%	0 0%	1 1%	0 0%	0 4%	0 0%	60 0%
1996-1998	254		9 4%	0 0%	2 2%	7 5%	0 0%	0 0%	0 9%	0 0%	0 5%	0 2%	0 3%	0 0%	0 3%	0 0%	0 2%	0 9%	0 0%	0 0%	6 9%	0 0%	70 7%
1999-2009	346		14 3%	0 5%	2 5%	12 2%	4 3%	0 4%	3 7%	0 0%	1 9%	0 0%	0 0%	0 0%	0 9%	0 0%	0 6%	0 1%	0 3%	0 0%	2 4%	0 0%	56 1%

Appendix C.62. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM														
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal				
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	17	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	32	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	190	2,3,4	10.0%	4.2%	0.5%	3.2%	0.0%	4.7%	7.4%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	62.6%
1990	170	3,4,5	11.8%	5.9%	4.1%	16.5%	0.0%	17.6%	0.0%	0.0%	6.5%	1.8%	2.4%	0.0%	1.8%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.8%
1991	374	2,4,5,6	13.6%	0.0%	0.3%	10.7%	0.0%	7.2%	0.0%	0.0%	0.0%	0.3%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	59.4%
1992	326	2,3,5,6	10.4%	0.3%	0.3%	10.7%	0.0%	20.6%	1.5%	0.0%	1.2%	2.1%	3.1%	0.0%	0.3%	0.0%	0.6%	0.0%	1.8%	0.0%	0.0%	0.0%	46.9%
1993	253	2,3,4,6	7.1%	0.4%	0.0%	7.9%	2.0%	17.0%	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	60.1%
1994	228	2,3,4,5	19.3%	8.8%	3.5%	9.6%	0.9%	7.5%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	48.7%
1995	181	2,3,4,5,6	14.9%	0.0%	0.0%	6.1%	0.0%	12.7%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	62.4%
1996	226	2,3,4,5,6	15.5%	0.0%	0.0%	0.9%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	82.3%
1997	307	2,3,4,5,6	12.1%	0.0%	5.9%	5.5%	0.0%	0.0%	2.6%	0.0%	1.3%	0.7%	0.7%	0.0%	1.0%	0.0%	0.0%	3.9%	0.0%	0.0%	19.9%	0.0%	46.6%
1998	280	2,3,4,5,6	10.4%	0.0%	1.8%	18.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%
1999	236	2,3,4,5,6	13.1%	0.0%	13.1%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	65.7%
2000	89	2,3,4,5,6	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	12.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.0%
2001	312	2,3,4,5,6	9.3%	0.0%	2.9%	0.0%	0.0%	0.0%	2.6%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	83.7%
2002	566	2,3,4,5,6	13.1%	0.2%	1.6%	3.4%	3.7%	0.9%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	75.4%
2003	800	2,3,4,5,6	14.1%	0.1%	0.0%	5.5%	2.8%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.9%	0.0%	24.8%	0.0%	49.9%
2004	937	2,3,4,5,6	19.3%	0.7%	2.1%	16.2%	0.0%	0.7%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%	0.0%	0.9%	0.0%	57.3%
2005	524	2,3,4,5,6	27.3%	0.0%	2.3%	25.4%	8.0%	1.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.8%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	31.7%
2006	227	2,3,4,5,6	23.3%	1.8%	2.6%	26.4%	2.2%	1.8%	3.1%	0.0%	5.3%	0.0%	0.0%	0.0%	0.4%	0.0%	1.3%	0.0%	2.2%	0.0%	0.0%	0.0%	29.5%
2007	78	2,3,4,5,6	12.8%	0.0%	0.0%	17.9%	15.4%	0.0%	0.0%	0.0%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.4%
2008	115	2,3,4,5,6	8.7%	0.0%	0.0%	14.8%	11.3%	0.0%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.0%
2009	166	3,4,5,6	31.9%	3.6%	2.4%	22.9%	12.0%	0.0%	13.9%	0.0%	4.2%	0.0%	0.0%	0.0%	6.6%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
1979-2009	314		14.2%	1.2%	2.3%	10.9%	2.8%	4.4%	2.6%	0.0%	1.5%	0.4%	0.9%	0.0%	0.7%	0.0%	0.5%	0.3%	0.6%	0.0%	2.3%	0.0%	54.4%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	246		12.5%	2.8%	1.2%	9.2%	0.4%	12.5%	1.3%	0.0%	1.1%	1.0%	2.6%	0.0%	0.4%	0.0%	0.5%	0.1%	1.4%	0.0%	0.3%	0.0%	52.7%
1996-1998	271		12.6%	0.0%	2.5%	8.5%	0.0%	0.1%	0.9%	0.0%	0.4%	0.2%	0.4%	0.0%	0.2%	0.0%	0.1%	1.2%	0.0%	0.0%	6.6%	0.0%	65.9%
1999-2009	368		15.7%	0.6%	3.0%	12.7%	5.0%	0.4%	3.9%	0.0%	2.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.6%	0.1%	0.3%	0.0%	2.3%	0.0%	52.4%

Appendix C.63. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	4503	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 0%	23 7%	0 1%	0 2%	1 2%	0 7%	2 7%	0 0%	16 5%	0 6%	7 5%	1 4%	5 4%	0 0%	21 7%	0 0%	18 4%
1980	5938	2,3,4,5	0 1%	0 0%	0 0%	0 1%	0 0%	26 0%	0 1%	0 1%	2 7%	0 5%	1 1%	0 0%	23 4%	1 9%	5 2%	0 7%	4 9%	0 0%	20 9%	0 0%	12 5%
1981	6522	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 0%	21 2%	0 1%	0 1%	1 4%	0 2%	2 0%	0 0%	23 2%	0 3%	10 8%	0 5%	1 9%	0 0%	20 0%	0 0%	18 4%
1982	4315	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	22 1%	0 0%	0 0%	1 0%	0 5%	0 3%	0 0%	19 6%	0 1%	7 2%	1 1%	1 0%	0 0%	34 4%	0 0%	12 7%
1983	782	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	29 9%	0 5%	0 0%	1 2%	0 4%	0 0%	0 0%	8 4%	0 0%	4 0%	0 3%	5 8%	0 0%	19 9%	0 0%	29 7%
1984	893	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	30 3%	0 4%	0 0%	0 0%	2 6%	1 5%	0 0%	6 6%	0 0%	1 1%	0 8%	4 3%	0 0%	16 5%	3 4%	32 6%
1985	1160	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	13 5%	0 7%	0 0%	0 0%	0 2%	0 2%	0 0%	14 0%	0 0%	2 4%	0 7%	1 4%	0 0%	26 7%	0 3%	40 0%
1986	325	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	23 1%	2 5%	0 0%	1 8%	2 8%	1 5%	0 0%	2 5%	0 0%	2 5%	0 9%	4 0%	0 0%	34 2%	1 2%	23 1%
1987	114	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 0%	0 0%	8 8%	17 5%	2 6%	0 0%	21 1%	8 8%	19 3%
1988	631	2,3,4,5	0 0%	0 0%	0 0%	0 5%	0 0%	23 5%	2 2%	0 0%	1 0%	0 3%	2 1%	0 0%	17 3%	0 0%	3 3%	1 6%	2 7%	0 0%	29 8%	4 4%	11 4%
1989	2036	2,3,4,5	0 0%	0 0%	0 0%	0 2%	0 0%	14 4%	3 3%	0 0%	0 4%	0 0%	0 4%	0 0%	24 8%	0 0%	3 3%	0 1%	1 6%	0 0%	34 4%	3 3%	13 8%
1990	2096	2,3,4,5	0 0%	0 0%	0 0%	0 2%	0 0%	17 6%	4 5%	0 3%	0 4%	0 3%	1 0%	0 0%	14 3%	0 0%	7 0%	0 3%	3 9%	0 0%	22 7%	2 2%	25 3%
1991	2577	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	13 1%	1 3%	0 0%	0 2%	0 3%	0 5%	0 0%	16 9%	0 0%	4 7%	0 5%	2 4%	0 0%	33 8%	3 9%	22 5%
1992	2834	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	11 9%	2 5%	0 2%	0 4%	0 3%	0 5%	0 0%	26 5%	0 0%	5 2%	0 0%	3 1%	0 0%	14 6%	3 5%	31 3%
1993	1107	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	17 7%	4 2%	0 0%	0 0%	0 0%	0 4%	0 0%	17 7%	0 0%	2 9%	0 0%	4 3%	0 0%	21 4%	3 2%	28 3%
1994	893	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	18 4%	3 8%	0 0%	0 0%	0 0%	0 8%	0 0%	3 5%	0 0%	0 0%	0 0%	0 8%	0 0%	30 3%	0 0%	42 4%
1995	906	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	6 7%	2 6%	0 0%	0 0%	0 0%	0 2%	0 0%	1 8%	0 0%	0 0%	0 3%	0 0%	0 0%	37 5%	0 0%	50 8%
1996	817	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	0 0%	1 1%	0 0%	0 7%	0 0%	57 8%	1 5%	29 7%
1997	597	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	12 1%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	0 0%	1 3%	0 0%	2 8%	0 0%	24 3%	6 7%	43 9%
1998	786	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	1 7%	0 0%	0 3%	0 0%	14 9%	10 8%	67 9%
1999	1514	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	3 8%	0 0%	0 3%	0 0%	0 0%	0 0%	16 8%	0 0%	2 6%	0 0%	0 2%	0 0%	36 5%	6 4%	33 0%
2000	788	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	5 3%	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	0 0%	1 9%	0 0%	0 4%	0 0%	22 1%	7 1%	53 4%
2001	6337	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	3 3%	0 8%	0 0%	0 2%	0 0%	0 0%	0 0%	13 9%	0 0%	2 9%	0 0%	0 3%	0 0%	22 5%	2 1%	54 0%
2002	4302	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	11 1%	1 3%	0 0%	0 2%	0 0%	0 0%	0 0%	16 3%	0 0%	7 8%	0 0%	0 3%	0 0%	25 1%	2 5%	35 3%
2003	6084	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	10 2%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	10 5%	0 0%	3 5%	0 0%	0 1%	0 0%	22 1%	2 2%	48 9%
2004	6137	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	12 0%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	9 0%	0 0%	3 1%	0 0%	0 3%	0 0%	18 4%	1 8%	52 4%
2005	2360	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	23 9%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	6 5%	0 0%	1 0%	0 0%	0 0%	0 0%	27 3%	0 9%	37 5%
2006	698	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	16 8%	4 4%	0 0%	0 0%	0 0%	0 0%	0 0%	5 2%	0 0%	1 9%	0 0%	1 0%	0 0%	37 1%	1 0%	32 7%
2007	986	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	6 1%	3 1%	0 0%	0 4%	0 0%	0 0%	0 0%	2 7%	0 0%	3 7%	0 0%	0 9%	0 0%	38 7%	1 4%	42 9%
2008	2145	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 1%	6 2%	0 0%	0 3%	0 0%	0 0%	0 0%	6 3%	0 0%	2 8%	0 0%	1 7%	0 0%	41 6%	2 6%	33 6%
2009	2438	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 2%	0 9%	1 7%	0 0%	0 2%	0 0%	0 0%	0 0%	1 2%	0 0%	2 9%	0 0%	1 6%	0 0%	40 6%	1 7%	49 0%
1979-2009	2375		0 0%	0 0%	0 0%	0 0%	0 0%	13 8%	2 3%	0 0%	0 4%	0 3%	0 5%	0 0%	11 6%	0 1%	3 7%	0 9%	2 0%	0 0%	28 0%	2 7%	33 8%
1979-1984	3826		0 0%	0 0%	0 0%	0 0%	0 0%	25 5%	0 2%	0 1%	1 2%	0 8%	1 3%	0 0%	16 3%	0 5%	5 9%	0 8%	3 9%	0 0%	22 2%	0 6%	20 7%
1985-1995	1334		0 0%	0 0%	0 0%	0 1%	0 0%	15 3%	2 5%	0 0%	0 4%	0 4%	0 7%	0 0%	13 9%	0 0%	3 6%	2 0%	2 4%	0 0%	27 9%	2 8%	28 0%
1996-1998	733		0 0%	0 0%	0 0%	0 0%	0 0%	4 1%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	0 0%	1 4%	0 0%	1 3%	0 0%	32 3%	6 3%	47 2%
1999-2009	3072		0 0%	0 0%	0 0%	0 0%	0 0%	8 6%	3 2%	0 0%	0 1%	0 0%	0 0%	0 0%	8 5%	0 0%	3 1%	0 0%	0 6%	0 0%	30 2%	2 7%	43 0%

Appendix C.64. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							CBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	5388	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.0%	26.9%	0.1%	0.2%	1.1%	0.8%	2.5%	0.0%	17.9%	0.7%	7.3%	1.8%	6.1%	0.0%	19.2%	0.0%	15.4%
1980	7108	2,3,4,5	0.1%	0.0%	0.0%	0.1%	0.0%	28.4%	0.1%	0.1%	2.4%	0.6%	1.0%	0.0%	24.5%	2.2%	5.0%	0.8%	5.7%	0.0%	18.6%	0.0%	10.5%
1981	7410	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.0%	23.0%	0.1%	0.1%	1.3%	0.2%	1.9%	0.0%	24.3%	0.3%	10.8%	0.5%	2.2%	0.0%	18.9%	0.0%	16.2%
1982	4967	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	25.1%	0.0%	0.0%	1.0%	0.5%	0.2%	0.0%	21.4%	0.1%	6.9%	1.1%	1.0%	0.0%	31.6%	0.0%	11.1%
1983	880	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	31.5%	0.5%	0.0%	1.1%	0.5%	0.0%	0.0%	9.2%	0.0%	4.1%	0.3%	7.8%	0.0%	18.6%	0.0%	26.4%
1984	1031	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	29.8%	0.4%	0.0%	0.0%	2.8%	1.4%	0.0%	6.0%	0.0%	1.2%	1.1%	10.4%	0.0%	15.2%	3.2%	28.2%
1985	1257	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	0.6%	0.0%	0.0%	0.2%	0.2%	0.0%	16.2%	0.0%	2.5%	0.7%	1.4%	0.0%	26.5%	0.2%	36.9%
1986	351	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	24.5%	2.6%	0.0%	1.7%	2.8%	1.7%	0.0%	2.6%	0.0%	2.6%	1.1%	4.8%	0.0%	33.0%	1.1%	21.4%
1987	151	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	9.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	0.0%	7.9%	23.2%	4.6%	0.0%	17.2%	7.3%	14.6%
1988	789	2,3,4,5	0.0%	0.0%	0.0%	0.5%	0.0%	26.2%	2.3%	0.0%	1.0%	0.3%	1.8%	0.0%	17.9%	0.0%	3.2%	2.2%	5.1%	0.0%	25.9%	4.7%	9.1%
1989	2374	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.0%	16.5%	3.2%	0.0%	0.5%	0.0%	0.4%	0.0%	20.7%	0.0%	3.2%	0.2%	1.9%	0.0%	31.7%	3.7%	11.8%
1990	2444	2,3,4,5	0.0%	0.0%	0.0%	0.2%	0.0%	20.0%	4.5%	0.3%	0.4%	0.4%	0.9%	0.0%	15.5%	0.0%	7.0%	0.4%	5.5%	0.0%	20.7%	2.3%	21.7%
1991	2963	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	1.3%	0.0%	0.3%	0.3%	0.5%	0.0%	18.7%	0.0%	4.7%	0.6%	3.2%	0.0%	31.5%	4.3%	19.6%
1992	3224	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%	2.4%	0.2%	0.5%	0.3%	0.5%	0.0%	28.7%	0.0%	5.0%	0.0%	3.3%	0.0%	13.8%	3.9%	27.5%
1993	1251	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	19.7%	4.2%	0.0%	0.0%	0.0%	0.3%	0.0%	19.3%	0.0%	2.9%	0.0%	5.5%	0.0%	19.7%	3.3%	25.0%
1994	971	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	21.6%	3.9%	0.0%	0.0%	0.0%	0.9%	0.0%	3.4%	0.0%	0.0%	0.0%	1.0%	0.0%	30.1%	0.0%	39.0%
1995	968	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	2.8%	0.0%	0.0%	0.0%	0.4%	0.0%	1.9%	0.0%	0.0%	0.5%	0.0%	0.0%	37.7%	0.0%	47.6%
1996	870	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	0.0%	1.1%	0.0%	0.9%	0.0%	58.4%	1.8%	27.9%
1997	649	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	1.2%	0.0%	3.5%	0.0%	23.6%	7.4%	40.4%
1998	845	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	1.9%	0.0%	1.1%	0.0%	15.1%	13.5%	63.2%
1999	1669	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	3.9%	0.0%	0.3%	0.0%	0.0%	0.0%	19.2%	0.0%	2.6%	0.0%	0.2%	0.0%	35.8%	7.7%	29.9%
2000	866	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	6.4%	0.0%	2.2%	0.0%	1.5%	0.0%	21.8%	8.4%	48.6%
2001	6815	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.9%	0.0%	0.3%	0.0%	0.0%	0.0%	16.2%	0.0%	3.1%	0.0%	0.8%	0.0%	22.6%	2.6%	50.2%
2002	4710	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	1.4%	0.0%	0.3%	0.0%	0.0%	0.0%	18.8%	0.0%	8.2%	0.0%	0.5%	0.0%	24.6%	2.9%	32.3%
2003	6486	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	12.0%	0.0%	3.7%	0.0%	0.2%	0.0%	22.0%	2.4%	45.9%
2004	6429	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	10.4%	0.0%	3.3%	0.0%	0.4%	0.0%	18.6%	2.1%	50.1%
2005	2457	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	24.3%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	0.0%	1.1%	0.0%	0.0%	0.0%	27.2%	1.0%	36.0%
2006	744	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	16.8%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	1.9%	0.0%	1.2%	0.0%	37.2%	1.2%	30.6%
2007	1096	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	3.6%	0.0%	0.5%	0.0%	0.0%	0.0%	3.1%	0.0%	4.1%	0.0%	4.5%	0.0%	37.6%	1.6%	38.6%
2008	2314	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	6.7%	0.0%	0.3%	0.0%	0.0%	0.0%	7.2%	0.0%	2.9%	0.0%	2.0%	0.0%	41.7%	3.2%	31.1%
2009	2831	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.5%	1.0%	2.1%	0.0%	0.2%	0.0%	0.0%	0.0%	1.4%	0.0%	3.1%	0.0%	9.6%	0.0%	37.9%	1.9%	42.2%
1979-2009	2655		0.0%	0.0%	0.0%	0.0%	0.0%	15.1%	2.5%	0.0%	0.4%	0.3%	0.5%	0.0%	12.7%	0.1%	3.7%	1.1%	3.1%	0.0%	26.9%	3.0%	30.6%
1979-1984	4464		0.0%	0.0%	0.0%	0.0%	0.0%	27.5%	0.2%	0.1%	1.1%	0.9%	1.2%	0.0%	17.3%	0.5%	5.9%	0.9%	5.5%	0.0%	20.4%	0.5%	17.9%
1985-1995	1522		0.0%	0.0%	0.0%	0.1%	0.0%	17.4%	2.5%	0.0%	0.4%	0.4%	0.7%	0.0%	15.1%	0.0%	3.5%	2.6%	3.3%	0.0%	26.2%	2.8%	24.9%
1996-1998	788		0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	1.4%	0.0%	1.8%	0.0%	32.4%	7.6%	43.8%
1999-2009	3311		0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	3.6%	0.0%	0.2%	0.0%	0.0%	0.0%	9.8%	0.0%	3.3%	0.0%	1.9%	0.0%	29.7%	3.2%	39.6%

Appendix C.65. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) reported catch among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	993	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	426	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	957	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	2776	2,3,4	0.2%	0.0%	0.0%	0.1%	0.1%	22.4%	0.1%	2.4%	11.5%	0.8%	2.0%	0.0%	2.8%	0.0%	0.1%	17.9%	21.4%	0.0%	7.1%	0.0%	11.0%
1983	3848	2,3,4,5	0.1%	0.0%	0.0%	0.7%	0.1%	18.2%	0.3%	0.3%	4.1%	1.8%	3.2%	0.0%	1.6%	0.0%	0.1%	20.5%	28.0%	0.0%	6.7%	0.2%	14.2%
1984	3639	2,3,4,5	0.1%	0.2%	0.0%	0.7%	0.1%	20.8%	0.3%	1.3%	7.3%	1.4%	1.2%	0.0%	1.4%	0.0%	0.1%	15.2%	22.1%	0.0%	9.3%	0.2%	18.4%
1985	1421	2,3,4,5	0.8%	0.0%	0.0%	0.0%	0.2%	18.6%	0.8%	0.4%	5.9%	0.3%	2.0%	0.0%	1.9%	0.0%	0.0%	17.6%	18.2%	0.0%	11.7%	0.0%	21.6%
1986	480	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	0.0%	0.0%	7.5%	0.0%	2.9%	0.0%	4.0%	0.0%	1.3%	9.8%	21.0%	0.0%	0.8%	0.0%	33.8%
1987	435	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	12.6%	0.0%	0.0%	12.6%	0.0%	3.9%	0.0%	7.1%	0.5%	0.2%	13.8%	10.6%	0.0%	0.0%	0.0%	38.6%
1988	1706	2,3,4,5	0.1%	0.0%	0.0%	0.2%	0.5%	5.5%	4.2%	0.2%	7.3%	0.5%	4.6%	0.0%	7.1%	0.0%	0.6%	25.2%	14.1%	0.0%	1.2%	0.0%	28.7%
1989	5015	2,3,4,5	0.1%	0.0%	0.0%	0.2%	0.0%	7.4%	2.5%	0.2%	4.3%	0.3%	4.0%	0.0%	11.0%	0.0%	0.4%	15.3%	15.7%	0.0%	6.1%	0.0%	32.3%
1990	5452	2,3,4,5	0.0%	0.0%	0.1%	0.3%	0.0%	22.7%	4.3%	0.3%	3.4%	0.3%	1.2%	0.0%	9.0%	0.0%	0.4%	14.0%	11.6%	0.0%	9.7%	0.4%	22.4%
1991	1746	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.0%	15.2%	2.6%	0.1%	1.7%	0.1%	1.0%	0.0%	11.6%	0.0%	0.3%	11.9%	12.6%	0.0%	14.7%	0.2%	27.4%
1992	1332	2,3,4,5	0.6%	0.1%	0.0%	0.0%	0.0%	17.3%	2.2%	0.3%	3.4%	0.9%	3.1%	0.0%	9.2%	0.0%	0.7%	14.2%	17.4%	0.0%	9.6%	0.0%	21.2%
1993	1403	2,3,4,5	0.2%	0.1%	0.0%	0.0%	0.0%	15.6%	4.6%	0.7%	3.1%	0.1%	2.9%	0.0%	5.5%	0.0%	0.2%	8.3%	20.8%	0.0%	7.5%	0.0%	30.4%
1994	1591	2,3,4,5	0.0%	0.0%	0.0%	0.5%	0.0%	9.1%	1.3%	0.0%	3.0%	0.0%	4.3%	0.0%	0.7%	0.0%	0.0%	11.3%	9.5%	0.0%	5.0%	0.3%	55.1%
1995	3515	2,3,4,5	0.2%	0.0%	0.0%	0.1%	0.0%	3.7%	1.1%	0.0%	1.8%	0.0%	1.0%	0.0%	1.3%	0.0%	0.0%	4.6%	11.7%	0.0%	1.0%	0.0%	73.4%
1996	4824	2,3,4,5	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	1.7%	0.0%	4.1%	0.0%	0.4%	0.0%	2.9%	0.0%	0.0%	3.8%	14.8%	0.0%	2.6%	0.0%	69.5%
1997	2579	2,3,4,5	0.5%	0.0%	0.0%	0.3%	0.0%	5.4%	2.8%	0.0%	1.7%	0.0%	0.5%	0.0%	1.6%	0.0%	0.1%	2.2%	12.7%	0.0%	0.7%	0.2%	71.3%
1998	1755	2,3,4,5	1.3%	0.0%	0.0%	0.9%	0.1%	0.5%	1.4%	0.0%	1.7%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	4.2%	5.8%	0.0%	3.8%	0.5%	79.0%
1999	2153	2,3,4,5	0.5%	0.0%	0.0%	0.2%	0.0%	0.7%	4.0%	0.0%	2.5%	0.0%	0.0%	0.0%	3.0%	0.0%	0.3%	4.5%	4.8%	0.0%	4.7%	0.0%	74.7%
2000	2218	2,3,4,5	0.4%	0.0%	0.0%	0.0%	0.0%	10.0%	4.3%	0.0%	1.8%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	6.2%	6.3%	0.0%	5.8%	0.0%	64.6%
2001	3729	2,3,4,5	0.1%	0.1%	0.0%	0.0%	0.1%	8.1%	3.2%	0.0%	2.9%	0.0%	0.0%	0.0%	4.2%	0.0%	0.4%	4.2%	8.7%	0.0%	7.2%	0.0%	60.8%
2002	3426	2,3,4,5	0.7%	0.0%	0.0%	0.7%	0.1%	12.7%	3.1%	0.0%	4.3%	0.0%	0.1%	0.0%	4.0%	0.0%	0.5%	3.6%	6.3%	0.0%	14.4%	0.0%	49.5%
2003	2167	2,3,4,5	0.6%	0.0%	0.0%	0.8%	0.0%	14.2%	3.7%	0.0%	3.8%	0.0%	0.0%	0.0%	4.9%	0.0%	0.4%	7.0%	9.5%	0.0%	7.5%	0.0%	47.6%
2004	1934	2,3,4,5	0.4%	0.1%	0.0%	0.6%	0.3%	17.7%	4.2%	0.0%	2.7%	0.0%	0.0%	0.0%	9.6%	0.0%	1.4%	8.0%	9.2%	0.0%	6.6%	0.0%	39.2%
2005	2115	2,3,4,5	0.0%	0.0%	0.0%	0.4%	0.5%	13.4%	4.5%	0.0%	3.8%	0.0%	0.0%	0.0%	5.6%	0.0%	1.2%	4.1%	6.3%	0.0%	1.8%	0.0%	58.4%
2006	3274	2,3,4,5	0.3%	0.0%	0.1%	0.5%	0.4%	12.3%	2.6%	0.0%	2.1%	0.0%	0.0%	0.0%	6.4%	0.0%	0.5%	6.3%	6.4%	0.0%	7.7%	0.0%	54.4%
2007	3267	2,3,4,5	0.2%	0.0%	0.0%	0.2%	0.0%	12.0%	4.3%	0.0%	1.4%	0.0%	0.0%	0.0%	5.3%	0.0%	0.2%	3.1%	10.3%	0.0%	12.3%	0.2%	50.5%
2008	2344	2,3,4,5	0.0%	0.0%	0.0%	0.3%	0.0%	7.3%	3.5%	0.0%	2.2%	0.0%	0.0%	0.0%	2.8%	0.0%	0.4%	4.1%	9.4%	0.0%	13.1%	0.3%	56.7%
2009	2618	2,3,4,5	0.1%	0.0%	0.0%	0.2%	0.0%	4.9%	8.2%	0.0%	3.5%	0.0%	0.0%	0.0%	2.5%	0.0%	0.3%	2.3%	8.3%	0.0%	12.7%	0.2%	56.8%
1979-2009	2599		0.3%	0.0%	0.0%	0.3%	0.1%	11.7%	2.7%	0.2%	4.1%	0.2%	1.4%	0.0%	4.6%	0.0%	0.4%	9.4%	12.6%	0.0%	6.8%	0.1%	45.0%
1979-1984	3421		0.2%	0.1%	0.0%	0.5%	0.1%	20.5%	0.2%	1.3%	7.6%	1.4%	2.1%	0.0%	2.0%	0.0%	0.1%	17.9%	23.8%	0.0%	7.7%	0.1%	14.5%
1985-1995	2191		0.2%	0.0%	0.0%	0.1%	0.1%	13.3%	2.1%	0.2%	4.9%	0.2%	2.8%	0.0%	6.2%	0.0%	0.4%	13.3%	14.8%	0.0%	6.1%	0.1%	35.0%
1996-1998	3053		0.6%	0.0%	0.0%	0.4%	0.0%	2.0%	2.0%	0.0%	2.5%	0.0%	0.3%	0.0%	1.8%	0.0%	0.0%	3.4%	11.1%	0.0%	2.4%	0.2%	73.3%
1999-2009	2659		0.3%	0.0%	0.0%	0.3%	0.1%	10.3%	4.1%	0.0%	2.8%	0.0%	0.0%	0.0%	4.4%	0.0%	0.5%	4.9%	7.8%	0.0%	8.5%	0.1%	55.7%

Appendix C.66. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM												
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	1034	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	621	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	1308	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	3260	2,3,4	0 2%	0 0%	0 0%	0 2%	0 1%	24 1%	0 1%	2 1%	10 5%	1 0%	1 8%	0 0%	2 8%	0 0%	0 1%	16 9%	24 1%	0 0%	6 4%	0 0%	9 3%
1983	4908	2,3,4,5	0 1%	0 0%	0 0%	0 7%	0 1%	17 7%	0 2%	0 2%	3 5%	1 8%	2 8%	0 0%	1 6%	0 0%	0 0%	19 5%	34 9%	0 0%	5 6%	0 2%	11 1%
1984	3981	2,3,4,5	0 1%	0 2%	0 0%	0 7%	0 1%	21 1%	0 3%	1 3%	7 1%	1 4%	1 1%	0 0%	1 5%	0 0%	0 1%	14 7%	24 3%	0 0%	9 0%	0 2%	16 8%
1985	1516	2,3,4,5	0 8%	0 0%	0 0%	0 0%	0 2%	18 4%	0 9%	0 3%	5 9%	0 3%	1 9%	0 0%	1 9%	0 0%	0 0%	17 4%	20 7%	0 0%	11 1%	0 0%	20 3%
1986	551	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	19 1%	0 0%	0 0%	7 1%	0 0%	2 9%	0 0%	4 0%	0 0%	1 3%	9 1%	26 5%	0 0%	0 7%	0 0%	29 4%
1987	585	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	21 2%	0 0%	0 0%	10 4%	0 0%	3 4%	0 0%	8 9%	0 9%	0 2%	11 3%	15 0%	0 0%	0 0%	0 0%	28 7%
1988	2536	2,3,4,5	0 4%	0 0%	0 0%	0 2%	0 4%	10 2%	3 4%	0 2%	9 1%	1 0%	3 5%	0 0%	7 6%	0 0%	0 5%	21 2%	22 1%	0 0%	0 9%	0 0%	19 3%
1989	5597	2,3,4,5	0 1%	0 0%	0 0%	0 3%	0 0%	8 8%	2 4%	0 2%	5 0%	0 4%	3 7%	0 0%	12 2%	0 0%	0 4%	14 7%	17 0%	0 0%	5 8%	0 0%	28 9%
1990	5926	2,3,4,5	0 0%	0 1%	0 1%	0 3%	0 0%	23 9%	4 3%	0 3%	3 5%	0 3%	1 2%	0 0%	9 2%	0 0%	0 4%	13 3%	13 0%	0 0%	9 1%	0 4%	20 6%
1991	1897	2,3,4,5	0 5%	0 0%	0 0%	0 0%	0 0%	16 6%	2 6%	0 2%	1 8%	0 1%	0 9%	0 0%	12 3%	0 0%	0 4%	11 3%	13 9%	0 0%	13 9%	0 2%	25 3%
1992	1598	2,3,4,5	0 6%	0 3%	0 0%	0 0%	0 0%	17 5%	2 1%	0 3%	3 5%	0 9%	2 9%	0 0%	9 1%	0 0%	0 6%	12 8%	23 4%	0 0%	8 3%	0 0%	17 6%
1993	1609	2,3,4,5	0 3%	0 1%	0 0%	0 0%	0 0%	18 1%	4 4%	1 0%	3 5%	0 1%	2 6%	0 0%	5 9%	0 0%	0 2%	7 8%	22 6%	0 0%	6 9%	0 0%	26 5%
1994	1858	2,3,4,5	0 0%	0 0%	0 0%	0 5%	0 0%	9 6%	1 3%	0 0%	3 3%	0 0%	5 1%	0 0%	0 6%	0 0%	0 0%	11 1%	16 6%	0 0%	4 5%	0 3%	47 1%
1995	3975	2,3,4,5	0 2%	0 1%	0 0%	0 1%	0 0%	5 4%	1 2%	0 0%	2 1%	0 0%	1 7%	0 0%	1 3%	0 0%	0 0%	4 8%	17 3%	0 0%	1 0%	0 0%	64 9%
1996	5185	2,3,4,5	0 1%	0 0%	0 0%	0 0%	0 1%	0 9%	1 8%	0 0%	4 8%	0 0%	0 5%	0 0%	2 8%	0 0%	0 0%	3 7%	18 0%	0 0%	2 5%	0 0%	64 7%
1997	2765	2,3,4,5	0 5%	0 0%	0 0%	0 3%	0 0%	6 5%	2 9%	0 0%	1 9%	0 0%	0 8%	0 0%	1 7%	0 0%	0 1%	2 1%	15 8%	0 0%	0 7%	0 1%	66 5%
1998	1902	2,3,4,5	1 4%	0 0%	0 0%	0 9%	0 1%	0 5%	1 5%	0 0%	1 8%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	4 3%	11 4%	0 0%	3 7%	0 5%	72 9%
1999	2278	2,3,4,5	0 6%	0 0%	0 0%	0 3%	0 0%	0 7%	4 3%	0 0%	3 0%	0 0%	0 0%	0 0%	3 5%	0 0%	0 3%	4 5%	7 4%	0 0%	4 8%	0 0%	70 6%
2000	2510	2,3,4,5	0 4%	0 1%	0 0%	0 0%	0 0%	9 9%	4 6%	0 0%	2 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 2%	6 4%	13 6%	0 0%	5 4%	0 0%	57 1%
2001	4114	2,3,4,5	0 1%	0 1%	0 0%	0 0%	0 1%	7 8%	3 4%	0 0%	3 5%	0 0%	0 0%	0 0%	4 7%	0 0%	0 4%	4 1%	13 8%	0 0%	7 0%	0 0%	55 1%
2002	3686	2,3,4,5	0 9%	0 0%	0 0%	0 8%	0 1%	12 5%	3 4%	0 0%	4 9%	0 0%	0 2%	0 0%	4 3%	0 0%	0 5%	3 5%	9 0%	0 0%	13 9%	0 0%	46 0%
2003	2351	2,3,4,5	0 7%	0 0%	0 0%	0 9%	0 0%	13 8%	4 3%	0 0%	4 3%	0 0%	0 0%	0 0%	5 3%	0 0%	0 4%	6 6%	12 8%	0 0%	7 1%	0 0%	43 9%
2004	2205	2,3,4,5	0 4%	0 1%	0 0%	0 6%	0 4%	17 1%	4 4%	0 0%	3 0%	0 0%	0 0%	0 0%	10 1%	0 0%	1 4%	7 6%	14 5%	0 0%	5 9%	0 0%	34 4%
2005	2333	2,3,4,5	0 0%	0 0%	0 0%	0 4%	0 6%	13 2%	4 8%	0 0%	4 4%	0 0%	0 0%	0 0%	6 2%	0 0%	1 2%	4 1%	10 2%	0 0%	1 7%	0 0%	53 0%
2006	3585	2,3,4,5	0 3%	0 0%	0 1%	0 5%	0 4%	12 1%	2 8%	0 0%	2 4%	0 0%	0 0%	0 0%	7 1%	0 0%	0 5%	6 5%	9 7%	0 0%	7 5%	0 0%	50 0%
2007	3845	2,3,4,5	0 2%	0 0%	0 0%	0 2%	0 0%	11 7%	4 4%	0 0%	1 6%	0 0%	0 0%	0 0%	5 8%	0 0%	0 2%	3 0%	15 8%	0 0%	11 6%	0 2%	45 2%
2008	2569	2,3,4,5	0 0%	0 0%	0 0%	0 3%	0 0%	7 2%	3 8%	0 0%	2 6%	0 0%	0 0%	0 0%	3 2%	0 0%	0 4%	4 2%	13 7%	0 0%	12 7%	0 3%	51 7%
2009	2907	2,3,4,5	0 1%	0 0%	0 0%	0 2%	0 0%	5 0%	8 8%	0 0%	4 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 3%	2 3%	13 0%	0 0%	12 0%	0 2%	51 1%
1979-2009	2922		0 3%	0 0%	0 0%	0 3%	0 1%	12 5%	2 8%	0 2%	4 3%	0 3%	1 3%	0 0%	4 9%	0 0%	0 4%	8 9%	16 8%	0 0%	6 4%	0 1%	40 3%
1979-1984	4050		0 2%	0 1%	0 0%	0 5%	0 1%	21 0%	0 2%	1 2%	7 0%	1 4%	1 9%	0 0%	2 0%	0 0%	0 1%	17 0%	27 8%	0 0%	7 0%	0 1%	12 4%
1985-1995	2513		0 3%	0 0%	0 0%	0 1%	0 1%	15 3%	2 0%	0 2%	5 0%	0 3%	2 7%	0 0%	6 6%	0 1%	0 4%	12 3%	18 9%	0 0%	5 6%	0 1%	29 9%
1996-1998	3284		0 7%	0 0%	0 0%	0 4%	0 0%	2 6%	2 0%	0 0%	2 8%	0 0%	0 5%	0 0%	1 9%	0 0%	0 0%	3 4%	15 1%	0 0%	2 3%	0 2%	68 0%
1999-2009	2924		0 3%	0 0%	0 0%	0 4%	0 2%	10 1%	4 5%	0 0%	3 2%	0 0%	0 0%	0 0%	4 8%	0 0%	0 5%	4 8%	12 1%	0 0%	8 1%	0 1%	50 7%

Appendix C.67. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	2	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	118	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	283	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	0 0%	3 2%	2 5%	0 0%	0 0%	1 1%	0 0%	0 0%	12 0%	66 1%	0 0%	2 5%	1 4%	8 5%
1983	395	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 8%	0 0%	0 0%	0 5%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	9 9%	76 2%	0 0%	0 0%	0 0%	5 8%
1984	247	3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	7 3%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	32 8%	43 3%	0 0%	0 8%	0 0%	14 2%
1985	65	4,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	30	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	449	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1270	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 2%	0 6%	0 0%	1 4%	0 0%	0 1%	33 1%	52 4%	0 0%	0 3%	0 6%	11 0%
1991	1036	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 6%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	3 7%	0 0%	0 0%	12 6%	57 2%	0 0%	0 2%	0 4%	19 6%
1992	500	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 6%	1 2%	0 0%	0 8%	0 0%	0 0%	0 0%	4 6%	0 0%	0 8%	27 4%	48 4%	0 0%	1 0%	0 0%	11 2%
1993	265	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	10 9%	52 5%	0 0%	0 0%	3 0%	29 4%
1994	729	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 7%	0 0%	0 5%	0 0%	2 3%	0 0%	0 0%	0 0%	0 0%	16 5%	61 3%	0 0%	0 0%	0 0%	17 8%
1995	548	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	6 4%	2 0%	0 0%	2 6%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	10 0%	66 8%	0 0%	0 4%	1 5%	10 0%
1996	691	2,3,4,5	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	1 7%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	2 9%	88 7%	0 0%	0 3%	0 6%	3 3%
1997	479	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	1 0%	0 0%	1 0%	0 0%	0 0%	0 0%	1 3%	0 0%	2 3%	4 0%	63 9%	0 0%	0 0%	0 0%	25 1%
1998	90	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	2 2%	82 2%	0 0%	3 3%	0 0%	10 0%
1999	39	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	15 4%	0 0%	0 0%	0 0%	7 7%	0 0%	0 0%	2 6%	69 2%	0 0%	0 0%	0 0%	5 1%
2000	76	3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	0 0%	0 0%	0 0%	0 0%	6 6%	0 0%	0 0%	11 8%	69 7%	0 0%	0 0%	0 0%	6 6%
2001	67	2,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 0%	0 0%	0 0%	0 0%	74 6%	0 0%	0 0%	0 0%	17 9%
2002	12	2,3,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 3%	0 0%	0 0%	0 0%	16 7%
2003	8	3,4	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	140	2,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	9 3%	0 0%	0 0%	0 0%	87 9%
2005	255	2,3,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	1 2%	16 1%	53 7%	0 0%	3 1%	0 0%	23 9%
2006	270	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	8 5%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 6%	0 0%	0 0%	21 1%	30 4%	0 0%	3 0%	0 0%	30 4%
2007	295	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	2 0%	13 6%	51 5%	0 0%	2 4%	0 0%	24 7%
2008	89	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 4%	0 0%	0 0%	5 6%	37 1%	0 0%	11 2%	0 0%	40 4%
2009	133	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	21 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	2 3%	3 8%	41 4%	0 0%	1 5%	4 5%	24 8%
1979-2009	360		0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	1 7%	0 0%	1 3%	0 2%	0 1%	0 0%	2 0%	0 0%	0 4%	11 3%	58 1%	0 0%	1 4%	0 5%	20 2%
1979-1984	308		0 0%	0 0%	0 0%	0 0%	0 0%	5 3%	0 0%	0 0%	1 8%	1 4%	0 0%	0 0%	0 4%	0 0%	0 0%	18 2%	61 9%	0 0%	1 1%	0 5%	9 5%
1985-1995	725		0 0%	0 0%	0 0%	0 0%	0 0%	3 2%	0 6%	0 0%	1 0%	0 0%	0 5%	0 0%	1 9%	0 0%	0 1%	18 4%	56 4%	0 0%	0 3%	0 9%	16 5%
1996-1998	420		0 1%	0 0%	0 0%	0 0%	0 0%	0 5%	0 8%	0 0%	0 9%	0 0%	0 0%	0 0%	1 4%	0 0%	0 8%	3 0%	78 3%	0 0%	1 2%	0 2%	12 8%
1999-2009	138		0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	3 2%	0 0%	1 5%	0 0%	0 0%	0 0%	2 7%	0 0%	0 5%	7 5%	52 0%	0 0%	2 1%	0 5%	27 8%

Appendix C.68. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

			AABM							ISBM													
	Estimated		SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Catch Year	# of CWTs	Ages Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	18	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	179	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	370	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%	0.0%	0.0%	2.7%	2.2%	0.0%	0.0%	0.8%	0.0%	0.0%	10.8%	70.3%	0.0%	1.9%	1.1%	6.5%
1983	490	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.4%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	78.8%	0.0%	0.0%	0.0%	4.7%
1984	271	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	31.0%	46.5%	0.0%	0.7%	0.0%	12.9%
1985	70	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	143	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	731	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1423	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.1%	0.1%	0.5%	0.0%	1.6%	0.0%	0.1%	31.3%	54.6%	0.0%	0.3%	0.7%	9.8%
1991	1230	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	11.3%	62.1%	0.0%	0.2%	0.3%	16.5%
1992	583	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	1.2%	0.0%	0.9%	0.0%	0.0%	0.0%	4.8%	0.0%	0.7%	26.1%	50.9%	0.0%	0.9%	0.0%	9.6%
1993	494	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	7.1%	71.9%	0.0%	0.0%	1.8%	15.8%
1994	875	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.7%	0.0%	0.7%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	15.3%	65.0%	0.0%	0.0%	0.0%	14.9%
1995	791	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	1.6%	0.0%	2.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	8.0%	73.7%	0.0%	0.3%	1.3%	7.0%
1996	809	2,3,4,5	0.5%	0.0%	0.0%	0.0%	0.0%	0.1%	1.1%	0.0%	1.9%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	2.6%	89.5%	0.0%	0.2%	0.6%	2.8%
1997	585	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	1.2%	0.0%	2.1%	3.4%	69.4%	0.0%	0.0%	0.0%	20.5%
1998	115	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	1.7%	86.1%	0.0%	2.6%	0.0%	7.8%
1999	102	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	1.0%	84.3%	0.0%	0.0%	0.0%	2.0%
2000	94	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	6.4%	0.0%	0.0%	9.6%	73.4%	0.0%	0.0%	0.0%	5.3%
2001	91	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	81.3%	0.0%	0.0%	0.0%	13.2%
2002	18	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.9%	0.0%	0.0%	0.0%	11.1%
2003	9	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	272	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	10.7%	40.8%	0.0%	0.4%	0.0%	45.2%
2005	314	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	1.3%	14.3%	60.2%	0.0%	2.5%	0.0%	19.4%
2006	455	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	15.4%	55.4%	0.0%	1.8%	0.0%	18.0%
2007	380	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	1.6%	11.6%	60.8%	0.0%	1.8%	0.0%	19.2%
2008	129	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	5.4%	52.7%	0.0%	8.5%	0.0%	27.9%
2009	257	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.2%	3.1%	65.0%	0.0%	0.8%	3.1%	12.8%
1979-2009	461		0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.3%	0.0%	1.0%	0.2%	0.1%	0.0%	1.6%	0.0%	0.3%	10.4%	67.3%	0.0%	1.0%	0.4%	13.8%
1979-1984	377		0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	1.7%	1.3%	0.0%	0.0%	0.3%	0.0%	0.0%	16.9%	65.2%	0.0%	0.9%	0.4%	8.0%
1985-1995	899		0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.6%	0.0%	0.9%	0.0%	0.5%	0.0%	1.9%	0.0%	0.1%	16.5%	63.0%	0.0%	0.3%	0.7%	12.3%
1996-1998	503		0.2%	0.0%	0.0%	0.0%	0.0%	0.5%	0.7%	0.0%	1.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.7%	2.6%	81.7%	0.0%	1.0%	0.2%	10.4%
1999-2009	211		0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	2.3%	0.0%	0.9%	0.0%	0.0%	0.0%	2.1%	0.0%	0.4%	7.1%	66.3%	0.0%	1.6%	0.3%	17.4%

Appendix C.69. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							PSTC													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	54	2	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	580	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1423	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.6%	0.0%	0.7%	0.0%	1.3%	0.0%	4.1%	0.0%	0.4%	33.1%	53.1%	0.0%	0.6%	0.0%	2.5%
1991	846	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.5%	1.1%	0.0%	0.6%	0.0%	8.9%	0.0%	0.4%	32.9%	48.2%	0.0%	0.0%	0.0%	3.3%
1992	728	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.5%	2.2%	0.8%	0.7%	2.7%	0.0%	1.6%	0.0%	7.1%	0.0%	0.5%	21.2%	56.7%	0.0%	1.1%	0.0%	4.4%
1993	347	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	9.2%	2.3%	0.0%	5.5%	0.0%	2.3%	0.0%	13.5%	0.0%	0.6%	2.3%	49.6%	0.0%	1.2%	0.0%	13.5%
1994	162	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	27.2%	4.9%	0.0%	6.2%	0.0%	3.7%	0.0%	6.8%	0.0%	0.0%	23.5%	4.9%	0.0%	0.0%	0.0%	22.8%
1995	59	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	30.5%	0.0%	0.0%	0.0%	22.0%
1996	382	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	4.4%	89.8%	0.0%	0.3%	0.0%	2.5%
1997	178	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	7.9%	84.3%	0.0%	0.0%	0.0%	0.6%
1998	104	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.9%	91.3%	0.0%	1.0%	0.0%	2.9%
1999	16	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	25.0%
2000	321	3,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	208	4	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	12	5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	422		0.0%	0.0%	0.0%	0.0%	0.1%	6.2%	0.9%	0.1%	1.8%	0.0%	1.0%	0.0%	4.7%	0.0%	0.2%	17.5%	57.1%	0.0%	0.4%	0.0%	10.0%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	594		0.0%	0.0%	0.0%	0.0%	0.1%	7.7%	1.5%	0.2%	2.7%	0.0%	1.6%	0.0%	6.7%	0.0%	0.3%	26.7%	40.5%	0.0%	0.5%	0.0%	11.4%
1996-1998	215		0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	4.7%	88.5%	0.0%	0.4%	0.0%	2.0%
1999-2009	16		0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	25.0%

Appendix C.70. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	192	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	988	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	1742	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.6%	0.1%	0.7%	0.0%	1.1%	0.0%	4.2%	0.0%	0.4%	32.0%	54.9%	0.0%	0.5%	0.1%	2.1%
1991	989	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.5%	1.1%	0.0%	0.5%	0.0%	8.9%	0.0%	0.3%	30.9%	50.6%	0.0%	0.0%	0.0%	2.8%
1992	964	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.4%	2.0%	0.6%	0.6%	2.4%	0.0%	1.2%	0.0%	6.0%	0.0%	0.4%	21.2%	60.9%	0.0%	0.9%	0.0%	3.3%
1993	392	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	10.2%	2.0%	0.0%	5.9%	0.0%	2.0%	0.0%	13.3%	0.0%	0.5%	2.6%	50.5%	0.0%	1.0%	0.0%	12.0%
1994	180	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	25.6%	5.0%	0.0%	6.1%	0.0%	4.4%	0.0%	6.7%	0.0%	0.0%	21.7%	10.0%	0.0%	0.0%	0.0%	20.6%
1995	228	2,3,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.4%	71.1%	0.0%	0.0%	0.0%	5.7%
1996	440	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	5.0%	90.0%	0.0%	0.2%	0.0%	2.0%
1997	236	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	6.4%	86.9%	0.0%	0.0%	0.0%	0.4%
1998	129	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	1.6%	93.0%	0.0%	0.8%	0.0%	2.3%
1999	196	2,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.5%	93.4%	0.0%	0.0%	0.0%	2.0%
2000	409	3,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	250	4	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	12	5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	550		0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	0.9%	0.1%	1.9%	0.0%	0.9%	0.0%	4.5%	0.0%	0.2%	14.4%	66.1%	0.0%	0.3%	0.0%	5.3%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	749		0.0%	0.0%	0.0%	0.0%	0.1%	7.6%	1.4%	0.2%	2.8%	0.0%	1.6%	0.0%	6.5%	0.0%	0.3%	21.8%	49.7%	0.0%	0.4%	0.0%	7.7%
1996-1998	268		0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	4.3%	90.0%	0.0%	0.3%	0.0%	1.6%
1999-2009	196		0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.5%	0.0%	0.5%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.5%	93.4%	0.0%	0.0%	0.0%	2.0%

Appendix C.71. Percent distribution of Salmon River (Oregon Coast) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WAOR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	479	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	846	2,3,4	31 3%	0 0%	0 8%	9 6%	0 0%	8 2%	0 0%	0 0%	0 0%	1 2%	1 5%	0 0%	1 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	14 5%	31 6%
1981	772	2,3,4,5	21 5%	0 0%	0 5%	25 3%	0 0%	3 4%	0 0%	0 0%	0 0%	0 3%	2 6%	0 0%	0 8%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	15 5%	28 6%
1982	716	2,3,4,5,6	7 7%	1 4%	0 8%	12 4%	0 0%	6 4%	0 0%	0 0%	0 0%	1 0%	0 6%	0 0%	1 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	23 9%	43 9%
1983	640	3,4,5,6	15 5%	0 5%	0 0%	15 2%	0 0%	8 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	21 1%	38 8%
1984	764	2,4,5,6	10 6%	0 0%	0 0%	17 8%	0 0%	3 4%	0 0%	0 0%	0 0%	3 5%	1 2%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 3%	20 5%	42 1%
1985	630	2,3,5,6	12 5%	6 8%	0 0%	16 5%	0 0%	1 6%	0 0%	0 0%	0 0%	1 1%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	20 2%	41 0%
1986	541	2,3,4,6	14 4%	0 0%	0 0%	12 8%	0 0%	2 0%	0 0%	0 0%	0 0%	4 4%	0 6%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	16 8%	48 4%
1987	728	2,3,4,5	10 3%	0 0%	0 0%	15 1%	0 0%	2 3%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	2 6%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	23 8%	44 4%
1988	1214	2,3,4,5,6	9 3%	0 0%	0 0%	6 3%	0 0%	3 8%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 8%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	14 3%	63 6%
1989	1142	2,3,4,5,6	8 4%	0 0%	0 0%	11 4%	0 0%	3 9%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	3 4%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	24 0%	46 8%
1990	1473	2,3,4,5,6	11 9%	0 7%	0 0%	10 7%	1 3%	7 8%	0 0%	0 0%	0 0%	0 3%	1 0%	0 0%	3 1%	0 0%	1 6%	0 0%	0 0%	0 0%	0 0%	23 6%	38 1%
1991	2442	2,3,4,5,6	18 4%	0 0%	0 5%	15 2%	0 8%	5 8%	0 0%	0 0%	0 0%	0 1%	0 7%	0 0%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	24 5%	33 4%
1992	2804	2,3,4,5,6	2 6%	0 6%	0 0%	6 6%	1 8%	14 8%	0 0%	0 0%	0 0%	0 8%	0 4%	0 0%	1 8%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	15 3%	54 5%
1993	2264	2,3,4,5,6	7 6%	0 2%	0 2%	15 2%	1 1%	16 2%	0 0%	0 0%	0 0%	0 2%	0 5%	0 0%	3 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	22 7%	30 7%
1994	4085	2,3,4,5,6	8 7%	0 2%	1 0%	14 8%	2 1%	4 7%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	1 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	17 3%	49 0%
1995	3889	2,3,4,5,6	6 7%	0 2%	0 3%	4 5%	0 9%	0 8%	0 2%	0 0%	0 0%	0 1%	0 1%	0 0%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	29 8%	56 2%
1996	1930	2,3,4,5,6	11 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	51 7%	31 5%
1997	3971	2,3,4,5,6	27 7%	0 0%	1 6%	3 3%	0 4%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	1 4%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	19 0%	46 1%
1998	2877	2,3,4,5,6	10 3%	0 4%	0 4%	11 0%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	1 0%	0 0%	0 0%	0 0%	0 1%	30 8%	44 3%
1999	2053	2,3,4,5,6	12 0%	0 4%	0 0%	4 4%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	33 6%	43 8%
2000	2648	2,3,4,5,6	12 7%	0 0%	0 5%	2 9%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	19 6%	61 4%
2001	3591	2,3,4,5,6	12 3%	0 0%	0 7%	3 3%	1 3%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 0%	1 5%	0 0%	0 0%	0 0%	0 1%	25 2%	52 5%
2002	4745	2,3,4,5,6	17 6%	0 0%	0 0%	7 1%	2 1%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 9%	0 0%	0 0%	0 0%	0 0%	32 8%	36 1%
2003	4643	2,3,4,5,6	12 9%	0 6%	0 6%	5 9%	1 6%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	2 8%	0 0%	0 0%	0 0%	0 0%	32 5%	41 4%
2004	4957	2,3,4,5,6	18 1%	0 8%	0 8%	7 3%	3 6%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	22 9%	42 7%
2005	4539	2,3,4,5,6	19 7%	0 0%	1 2%	8 5%	4 8%	2 6%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 1%	1 3%	0 0%	0 0%	0 0%	0 0%	30 3%	30 0%
2006	1848	2,3,4,5,6	24 4%	0 0%	1 7%	12 3%	5 4%	2 1%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	3 0%	0 0%	0 0%	0 0%	0 2%	26 9%	20 8%
2007	1254	2,3,4,5,6	12 8%	0 0%	0 0%	6 6%	3 3%	0 2%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	37 0%	38 7%
2008	688	2,3,4,5,6	8 3%	0 0%	0 0%	4 4%	4 5%	2 9%	2 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 2%	0 1%	0 0%	0 0%	0 0%	14 4%	60 0%
2009	1682	2,3,4,5,6	13 5%	0 0%	0 6%	8 9%	2 3%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	34 8%	38 3%
1979-2009	2213		13 7%	0 4%	0 5%	9 8%	1 5%	3 5%	0 2%	0 0%	0 0%	0 5%	0 4%	0 0%	1 2%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	24 6%	42 6%
1979-1984	748		17 3%	0 4%	0 4%	16 0%	0 0%	5 9%	0 1%	0 0%	0 0%	1 3%	1 2%	0 0%	0 6%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	19 1%	37 0%
1985-1995	1929		10 1%	0 8%	0 2%	11 7%	0 7%	6 0%	0 0%	0 0%	0 0%	0 7%	0 5%	0 0%	1 5%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	21 1%	46 0%
1996-1998	2926		16 4%	0 1%	0 7%	4 8%	0 6%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	33 8%	40 6%
1999-2009	2989		14 9%	0 2%	0 7%	6 5%	3 1%	1 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	28 2%	42 3%

Appendix C.72. Percent distribution of Salmon River (Oregon Coast) total fishing mortalities among fisheries and escapement.

	Estimated		AABM							ISBM													
Catch	# of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	591	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	930	2,3,4	30 9%	0 1%	0 9%	12 3%	0 0%	8 8%	0 0%	0 0%	0 0%	1 2%	1 5%	0 0%	1 2%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	14 2%	28 7%
1981	869	2,3,4,5	22 3%	0 0%	0 5%	27 0%	0 0%	4 1%	0 6%	0 0%	0 0%	0 7%	2 5%	0 0%	0 8%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	15 1%	25 4%
1982	820	2,3,4,5,6	10 7%	1 3%	1 0%	14 3%	0 0%	7 3%	0 0%	0 0%	0 0%	1 1%	0 6%	0 0%	1 1%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	23 3%	38 3%
1983	732	3,4,5,6	20 6%	0 5%	0 0%	16 3%	0 0%	7 9%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	19 7%	33 9%
1984	837	2,4,5,6	13 3%	0 0%	0 0%	18 4%	0 0%	3 6%	0 0%	0 0%	0 0%	3 3%	1 1%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	0 0%	0 2%	21 1%	38 5%
1985	762	2,3,5,6	15 4%	10 9%	0 0%	15 7%	0 0%	1 7%	0 0%	0 0%	0 0%	1 2%	0 3%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	20 7%	33 9%
1986	647	2,3,4,6	20 1%	0 0%	0 0%	14 2%	0 0%	2 9%	0 0%	0 0%	0 0%	4 2%	0 5%	0 0%	0 5%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	16 5%	40 5%
1987	841	2,3,4,5	17 1%	0 0%	0 0%	15 5%	0 0%	2 7%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	2 5%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	22 2%	38 4%
1988	1424	2,3,4,5,6	15 3%	0 0%	0 0%	8 4%	0 0%	5 1%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 9%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	13 6%	54 2%
1989	1514	2,3,4,5,6	17 4%	0 0%	0 0%	16 2%	0 0%	4 6%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	3 3%	0 0%	0 4%	0 0%	0 3%	0 0%	0 0%	21 3%	35 3%
1990	1825	2,3,4,5,6	18 2%	1 6%	0 0%	12 9%	1 2%	8 0%	0 0%	0 0%	0 0%	0 3%	0 8%	0 0%	3 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	21 7%	30 7%
1991	2917	2,3,4,5,6	24 0%	0 0%	0 5%	16 5%	0 8%	6 1%	0 0%	0 0%	0 0%	0 1%	0 7%	0 0%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 0%	22 7%	28 0%
1992	3316	2,3,4,5,6	4 6%	3 3%	0 0%	8 3%	2 1%	16 8%	0 0%	0 0%	0 0%	0 9%	0 3%	0 0%	2 0%	0 0%	0 5%	0 0%	0 2%	0 0%	0 0%	14 8%	46 1%
1993	2753	2,3,4,5,6	10 5%	0 5%	0 2%	17 2%	1 0%	19 4%	0 0%	0 0%	0 0%	0 2%	0 4%	0 0%	3 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	22 0%	25 2%
1994	4687	2,3,4,5,6	15 1%	0 4%	1 0%	15 1%	2 2%	4 9%	0 0%	0 0%	0 0%	0 2%	0 1%	0 0%	1 4%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	16 5%	42 7%
1995	4445	2,3,4,5,6	10 1%	0 4%	0 4%	6 6%	1 1%	1 2%	0 2%	0 0%	0 0%	0 2%	0 1%	0 0%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	30 1%	49 3%
1996	2459	2,3,4,5,6	19 9%	0 0%	0 0%	2 7%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 9%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	47 2%	24 7%
1997	4407	2,3,4,5,6	32 2%	0 0%	1 7%	3 4%	0 4%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	1 5%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	18 7%	41 6%
1998	3113	2,3,4,5,6	11 6%	0 7%	0 4%	11 8%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	1 0%	0 0%	0 0%	0 0%	0 1%	31 4%	40 9%
1999	2406	2,3,4,5,6	18 0%	0 5%	0 0%	4 8%	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	32 5%	37 4%
2000	2969	2,3,4,5,6	17 3%	0 0%	0 7%	3 4%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	20 5%	54 7%
2001	4041	2,3,4,5,6	16 6%	0 0%	1 0%	3 8%	1 7%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	0 0%	1 6%	0 0%	0 0%	0 0%	0 1%	25 2%	46 7%
2002	5587	2,3,4,5,6	21 9%	0 0%	1 1%	7 9%	2 5%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	32 4%	30 7%
2003	5155	2,3,4,5,6	15 3%	1 0%	0 7%	6 6%	1 9%	0 0%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	2 9%	0 0%	0 0%	0 0%	0 0%	32 6%	37 3%
2004	5500	2,3,4,5,6	20 6%	1 2%	0 9%	7 8%	4 6%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	22 7%	38 5%
2005	4965	2,3,4,5,6	21 2%	0 0%	1 3%	8 8%	5 5%	2 5%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 1%	1 3%	0 0%	0 0%	0 0%	0 0%	30 3%	27 4%
2006	2020	2,3,4,5,6	26 0%	0 0%	1 7%	12 3%	5 7%	1 9%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	2 9%	0 0%	0 0%	0 0%	0 1%	26 8%	19 0%
2007	1417	2,3,4,5,6	15 3%	0 0%	1 3%	7 3%	4 5%	0 1%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	36 6%	34 2%
2008	865	2,3,4,5,6	17 2%	0 0%	0 0%	7 1%	4 7%	3 1%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 0%	0 1%	0 0%	0 0%	0 0%	14 5%	47 7%
2009	1943	2,3,4,5,6	17 4%	0 0%	0 7%	9 9%	2 5%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	34 6%	33 4%
1979-2009	2539		17 9%	0 8%	0 5%	11 1%	1 7%	3 9%	0 2%	0 0%	0 0%	0 5%	0 3%	0 0%	1 3%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	24 1%	36 8%
1979-1984	838		19 6%	0 4%	0 5%	17 6%	0 0%	6 4%	0 1%	0 0%	0 0%	1 4%	1 1%	0 0%	0 7%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	18 7%	33 0%
1985-1995	2285		15 3%	1 6%	0 2%	13 3%	0 8%	6 7%	0 0%	0 0%	0 0%	0 8%	0 4%	0 0%	1 6%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	20 2%	38 6%
1996-1998	3326		21 2%	0 2%	0 7%	5 0%	0 8%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	32 4%	35 7%
1999-2009	3352		18 8%	0 2%	0 8%	7 2%	3 7%	1 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	28 1%	37 0%

Appendix C.73. Percent distribution of Skagit Summer Fingerling (Skagit Wild) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	3	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	6	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	179	2,3,4	3.4%	0.0%	0.0%	0.0%	1.1%	1.7%	6.7%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	84.4%
1999	168	2,3,4,5	7.1%	2.4%	0.0%	0.0%	0.0%	0.0%	20.2%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	61.9%
2000	219	2,3,4,5	5.9%	0.9%	0.0%	0.0%	0.0%	2.3%	7.8%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	5.5%	0.0%	0.0%	0.0%	68.5%
2001	771	2,3,4,5	6.9%	1.8%	0.9%	0.0%	0.9%	9.1%	6.2%	0.0%	8.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.3%	1.3%	0.0%	0.5%	0.0%	63.4%
2002	2151	2,3,4,5	12.7%	0.0%	0.8%	1.4%	1.1%	6.5%	1.7%	0.0%	3.9%	0.0%	0.3%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.7%	0.0%	70.5%
2003	829	2,3,4,5	6.3%	0.1%	0.0%	3.9%	2.3%	11.0%	3.7%	0.0%	6.0%	0.0%	0.1%	0.0%	0.4%	0.0%	0.4%	0.5%	0.4%	0.0%	0.2%	0.0%	64.8%
2004	798	2,3,4,5	5.0%	0.0%	0.0%	2.4%	0.5%	10.8%	1.3%	0.0%	0.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	1.0%	0.4%	0.0%	0.0%	0.0%	77.2%
2005	911	2,3,4,5	7.2%	0.2%	0.5%	1.4%	4.5%	7.0%	4.0%	0.0%	1.8%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.7%	0.0%	3.7%	0.2%	68.3%
2006	1348	2,3,4,5	3.1%	1.0%	0.1%	0.6%	2.1%	4.2%	3.0%	0.0%	2.0%	0.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.2%	0.5%	0.0%	3.0%	0.0%	78.9%
2007	1423	2,3,4,5	5.4%	0.4%	0.2%	0.9%	0.9%	8.6%	3.4%	0.0%	0.6%	0.0%	0.1%	0.0%	0.8%	0.0%	0.0%	0.2%	0.4%	0.0%	2.8%	0.0%	75.1%
2008	1070	2,3,4,5	4.7%	0.0%	0.0%	1.3%	1.5%	5.1%	5.2%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.7%	0.0%	18.2%	0.0%	61.1%
2009	779	2,3,4,5	6.8%	0.8%	0.8%	1.5%	1.2%	3.5%	7.3%	0.0%	3.5%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%	2.4%	0.0%	35.7%	0.0%	36.2%
1979-2009	887		6.2%	0.6%	0.3%	1.1%	1.4%	5.8%	5.9%	0.0%	3.7%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.4%	1.1%	0.0%	5.5%	0.0%	67.5%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1996-1998	179		3.4%	0.0%	0.0%	0.0%	1.1%	1.7%	6.7%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	84.4%
1999-2009	952		6.5%	0.7%	0.3%	1.2%	1.4%	6.2%	5.8%	0.0%	3.9%	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.5%	1.1%	0.0%	6.0%	0.0%	66.0%

Appendix C.74. Percent distribution of Skagit Summer Fingerling (Skagit Wild) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	4	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	12	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	183	2,3,4	3 8%	0 0%	0 0%	0 0%	1 1%	1 6%	6 6%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	82 5%
1999	187	2,3,4,5	10 7%	3 2%	0 0%	0 0%	0 0%	0 0%	20 9%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	55 6%
2000	268	2,3,4,5	10 8%	0 7%	0 0%	0 0%	0 0%	3 4%	7 8%	0 0%	7 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	11 9%	0 0%	0 0%	0 0%	56 0%
2001	857	2,3,4,5	9 5%	3 0%	1 1%	0 0%	1 1%	8 6%	6 5%	0 0%	9 7%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 2%	2 7%	0 0%	0 5%	0 0%	57 1%
2002	2276	2,3,4,5	13 3%	0 0%	0 9%	1 5%	1 4%	6 4%	1 8%	0 0%	4 2%	0 0%	2 9%	0 0%	0 1%	0 0%	0 0%	0 2%	0 0%	0 0%	0 7%	0 0%	66 6%
2003	875	2,3,4,5	7 0%	0 2%	0 0%	4 2%	3 0%	11 0%	4 6%	0 0%	6 6%	0 0%	0 2%	0 0%	0 3%	0 0%	0 3%	0 5%	0 5%	0 0%	0 2%	0 0%	61 4%
2004	825	2,3,4,5	5 7%	0 0%	0 0%	2 9%	0 7%	11 3%	1 5%	0 0%	0 8%	0 0%	0 0%	0 0%	0 8%	0 0%	0 0%	1 0%	0 6%	0 0%	0 0%	0 0%	74 7%
2005	967	2,3,4,5	8 6%	0 3%	0 6%	1 7%	5 7%	7 0%	4 4%	0 0%	2 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 1%	1 0%	0 0%	3 6%	0 2%	64 3%
2006	1394	2,3,4,5	3 6%	1 3%	0 2%	0 6%	3 2%	4 3%	3 4%	0 0%	2 4%	0 0%	0 1%	0 0%	0 5%	0 0%	0 0%	0 2%	0 6%	0 0%	3 0%	0 0%	76 4%
2007	1471	2,3,4,5	6 4%	0 7%	0 2%	1 0%	1 1%	8 8%	3 8%	0 0%	0 7%	0 0%	0 1%	0 0%	1 0%	0 0%	0 0%	0 2%	0 5%	0 0%	2 8%	0 0%	72 7%
2008	1115	2,3,4,5	5 7%	0 0%	0 0%	1 5%	1 7%	5 3%	5 8%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	1 1%	0 0%	17 9%	0 0%	58 7%
2009	865	2,3,4,5	8 0%	0 8%	1 3%	1 6%	1 5%	3 6%	8 1%	0 0%	3 9%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 1%	5 0%	0 0%	33 3%	0 0%	32 6%
1979-2009	940		7 8%	0 9%	0 4%	1 3%	1 7%	5 9%	6 3%	0 0%	4 3%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 4%	2 1%	0 0%	5 3%	0 0%	63 2%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1996-1998	183		3 8%	0 0%	0 0%	0 0%	1 1%	1 6%	6 6%	0 0%	2 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	0 0%	82 5%
1999-2009	1009		8 1%	0 9%	0 4%	1 4%	1 8%	6 3%	6 2%	0 0%	4 4%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 4%	2 2%	0 0%	5 7%	0 0%	61 4%

Appendix C.75. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	10	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	42	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	83	2,3,4	0.0%	0.0%	0.0%	3.6%	3.6%	7.2%	0.0%	0.0%	15.7%	19.3%	26.5%	0.0%	0.0%	0.0%	0.0%	4.8%	19.3%	0.0%	0.0%	0.0%	0.0%
1985	97	2,3,4,5	7.2%	0.0%	0.0%	4.1%	0.0%	29.9%	9.3%	0.0%	10.3%	0.0%	15.5%	0.0%	0.0%	0.0%	0.0%	9.3%	13.4%	0.0%	0.0%	0.0%	1.0%
1986	89	3,4,5	4.5%	0.0%	0.0%	0.0%	0.0%	32.6%	0.0%	0.0%	20.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	16.9%	21.3%	0.0%	0.0%	0.0%	0.0%
1987	41	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	57	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	255	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	339	2,3,4	0.6%	0.0%	0.0%	0.9%	0.0%	21.2%	6.5%	0.6%	9.4%	8.0%	10.9%	0.0%	5.6%	0.0%	0.0%	7.4%	13.6%	0.0%	2.1%	0.0%	13.3%
1991	914	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.4%	4.7%	2.1%	0.0%	3.6%	0.0%	1.0%	0.0%	4.3%	0.0%	0.0%	3.7%	6.5%	0.0%	1.9%	0.0%	71.7%
1992	636	2,3,4,5	0.0%	0.0%	0.0%	0.5%	0.0%	18.1%	4.2%	0.0%	5.3%	0.0%	5.2%	0.0%	6.0%	0.0%	0.0%	10.2%	29.6%	0.0%	2.4%	0.0%	18.6%
1993	816	2,3,4,5	0.0%	0.0%	0.0%	0.6%	1.3%	11.3%	9.4%	0.2%	8.3%	0.4%	2.3%	0.0%	5.3%	0.0%	0.4%	0.5%	20.2%	0.0%	1.0%	0.0%	38.7%
1994	451	2,3,4,5	2.4%	0.0%	0.0%	0.7%	0.0%	6.7%	5.3%	0.0%	7.8%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	2.2%	5.8%	0.0%	0.2%	0.0%	66.7%
1995	378	2,3,4,5	2.4%	0.0%	0.0%	0.0%	0.0%	2.4%	9.8%	0.0%	4.2%	0.0%	10.8%	0.0%	1.1%	0.0%	0.0%	2.1%	14.0%	0.0%	0.3%	0.0%	52.9%
1996	679	2,3,4,5	0.9%	0.0%	0.0%	0.0%	1.0%	0.0%	7.1%	0.0%	6.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%	18.7%	0.0%	0.3%	0.0%	58.8%
1997	776	2,3,4,5	8.9%	0.4%	0.0%	0.5%	1.0%	6.1%	7.0%	0.0%	4.6%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	1.4%	15.1%	0.0%	0.5%	0.0%	53.2%
1998	1040	2,3,4,5	9.3%	0.2%	0.3%	1.0%	0.5%	1.0%	2.2%	0.0%	1.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	1.9%	0.0%	0.3%	0.0%	80.2%
1999	658	2,3,4,5	0.6%	1.5%	0.0%	0.0%	0.3%	2.9%	7.3%	0.0%	5.6%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.3%	2.4%	0.0%	0.2%	0.0%	78.4%
2000	955	2,3,4,5	3.8%	0.0%	0.0%	0.0%	0.0%	6.0%	1.3%	0.0%	1.5%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.4%	0.0%	0.1%	0.0%	85.7%
2001	286	3,4,5	2.1%	0.0%	0.0%	0.0%	0.0%	5.6%	4.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	1.0%	10.1%	0.0%	0.3%	0.0%	71.7%
2002	308	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	13	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	98	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	456	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	779	2,3,4	2.2%	0.0%	0.0%	0.0%	0.8%	11.3%	1.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	1.7%	2.3%	0.0%	0.6%	0.0%	77.0%
2007	653	2,3,4,5	0.6%	0.5%	0.0%	0.0%	0.0%	15.9%	5.8%	0.0%	8.9%	0.0%	0.5%	0.0%	1.7%	0.0%	0.0%	4.3%	4.9%	0.0%	0.6%	0.0%	56.4%
2008	1107	2,3,4,5	1.8%	0.0%	0.0%	0.0%	0.0%	5.0%	5.1%	0.0%	4.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	8.6%	0.0%	3.4%	0.0%	70.8%
2009	882	2,3,4,5	1.2%	0.1%	0.2%	0.3%	0.7%	2.3%	4.1%	0.0%	7.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	1.2%	5.8%	0.0%	4.1%	0.0%	72.7%
1979-2009	611		2.6%	0.1%	0.0%	0.6%	0.5%	10.0%	4.8%	0.0%	6.9%	1.5%	4.7%	0.0%	1.3%	0.0%	0.0%	3.6%	11.3%	0.0%	1.0%	0.0%	50.9%
1979-1984	83		0.0%	0.0%	0.0%	3.6%	3.6%	7.2%	0.0%	0.0%	15.7%	19.3%	26.5%	0.0%	0.0%	0.0%	0.0%	4.8%	19.3%	0.0%	0.0%	0.0%	0.0%
1985-1995	465		2.2%	0.0%	0.0%	0.8%	0.2%	15.9%	5.8%	0.1%	8.7%	1.0%	6.6%	0.0%	2.8%	0.0%	0.0%	6.5%	15.5%	0.0%	1.0%	0.0%	32.9%
1996-1998	832		6.4%	0.2%	0.1%	0.5%	0.8%	2.3%	5.4%	0.0%	4.1%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	1.0%	11.9%	0.0%	0.4%	0.0%	64.1%
1999-2009	760		1.8%	0.3%	0.0%	0.0%	0.3%	7.0%	4.1%	0.0%	5.0%	0.0%	0.1%	0.0%	0.5%	0.0%	0.0%	1.3%	5.1%	0.0%	1.3%	0.0%	73.2%

Appendix C.76. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) total fishing mortalities among fisheries and escapement

			AABM							ISBM													
Catch	Estimated # of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	16	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	53	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	106	2,3,4	0.0%	0.0%	0.0%	3.8%	2.8%	10.4%	0.0%	0.0%	13.2%	17.0%	21.7%	0.0%	0.0%	0.0%	0.0%	4.7%	26.4%	0.0%	0.0%	0.0%	0.0%
1985	112	2,3,4,5	6.3%	0.0%	0.0%	4.5%	0.0%	30.4%	8.9%	0.0%	8.9%	0.0%	13.4%	0.0%	0.0%	0.0%	0.0%	8.9%	17.9%	0.0%	0.0%	0.0%	0.9%
1986	96	3,4,5	5.2%	0.0%	0.0%	0.0%	0.0%	32.3%	0.0%	0.0%	20.8%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	15.6%	21.9%	0.0%	0.0%	0.0%	0.0%
1987	42	4,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	102	2,5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	315	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	411	2,3,4	0.7%	0.0%	0.0%	1.0%	0.2%	21.4%	6.1%	0.7%	9.7%	7.8%	9.5%	0.0%	6.6%	0.0%	0.0%	7.1%	16.5%	0.0%	1.7%	0.0%	10.9%
1991	968	2,3,4,5	0.2%	0.0%	0.0%	0.0%	0.4%	5.5%	2.3%	0.0%	4.2%	0.0%	0.9%	0.0%	4.9%	0.0%	0.0%	3.7%	8.4%	0.0%	1.9%	0.0%	67.7%
1992	895	2,3,4,5	0.0%	0.0%	0.0%	0.4%	0.0%	17.9%	3.7%	0.0%	5.3%	0.0%	4.1%	0.0%	5.7%	0.0%	0.0%	9.1%	38.9%	0.0%	1.8%	0.0%	13.2%
1993	927	2,3,4,5	0.0%	0.0%	0.0%	0.9%	1.3%	13.5%	9.1%	0.3%	9.5%	0.5%	2.2%	0.0%	5.8%	0.0%	0.3%	0.4%	21.3%	0.0%	0.9%	0.0%	34.1%
1994	477	2,3,4,5	2.9%	0.0%	0.0%	0.6%	0.0%	7.3%	5.7%	0.0%	8.6%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	2.1%	7.1%	0.0%	0.2%	0.0%	63.1%
1995	500	2,3,4,5	2.4%	0.0%	0.0%	0.0%	0.0%	3.8%	9.0%	0.0%	4.4%	0.0%	12.6%	0.0%	0.8%	0.0%	0.0%	2.0%	24.8%	0.0%	0.2%	0.0%	40.0%
1996	817	2,3,4,5	1.1%	0.0%	0.0%	0.0%	0.9%	1.1%	6.9%	0.0%	6.5%	0.0%	8.2%	0.0%	0.0%	0.0%	0.0%	0.0%	26.2%	0.0%	0.2%	0.0%	48.8%
1997	862	2,3,4,5	9.6%	0.7%	0.0%	0.5%	1.3%	6.7%	6.7%	0.0%	5.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	1.3%	18.1%	0.0%	0.5%	0.0%	47.9%
1998	1092	2,3,4,5	10.5%	0.4%	0.4%	1.6%	0.7%	0.9%	2.5%	0.0%	1.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.5%	2.9%	0.0%	0.3%	0.0%	78.4%
1999	703	2,3,4,5	0.7%	4.6%	0.0%	0.0%	0.3%	2.8%	7.5%	0.0%	6.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.3%	3.6%	0.0%	0.1%	0.0%	73.4%
2000	980	2,3,4,5	4.5%	0.0%	0.0%	0.0%	0.0%	6.1%	1.4%	0.0%	1.7%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	2.2%	0.0%	0.1%	0.0%	83.5%
2001	308	3,4,5	1.0%	0.0%	0.0%	0.0%	0.0%	5.2%	4.2%	0.0%	4.5%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	1.0%	15.9%	0.0%	0.2%	0.0%	66.6%
2002	308	4,5		Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	13	5	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	128	2	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	497	2,3	Failed	Criteria		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	816	2,3,4	2.5%	0.0%	0.0%	0.0%	0.9%	11.8%	1.2%	0.0%	3.1%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.7%	3.9%	0.0%	0.6%	0.0%	73.5%
2007	756	2,3,4,5	1.1%	0.8%	0.0%	0.0%	0.0%	15.7%	6.2%	0.0%	10.6%	0.0%	0.8%	0.0%	1.9%	0.0%	0.0%	4.4%	9.4%	0.0%	0.5%	0.0%	48.7%
2008	1172	2,3,4,5	2.5%	0.0%	0.0%	0.0%	0.0%	4.8%	5.5%	0.0%	5.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%	10.8%	0.0%	3.4%	0.0%	66.9%
2009	947	2,3,4,5	1.4%	0.1%	0.3%	0.3%	0.8%	2.2%	4.5%	0.0%	8.1%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	1.3%	9.1%	0.0%	3.9%	0.0%	67.7%
1979-2009	681		2.8%	0.3%	0.0%	0.7%	0.5%	10.5%	4.8%	0.1%	7.3%	1.3%	4.3%	0.0%	1.4%	0.0%	0.0%	3.4%	15.0%	0.0%	0.9%	0.0%	46.5%
1979-1984	106		0.0%	0.0%	0.0%	3.8%	2.8%	10.4%	0.0%	0.0%	13.2%	17.0%	21.7%	0.0%	0.0%	0.0%	0.0%	4.7%	26.4%	0.0%	0.0%	0.0%	0.0%
1985-1995	548		2.2%	0.0%	0.0%	0.9%	0.2%	16.5%	5.6%	0.1%	8.9%	1.0%	6.1%	0.0%	3.0%	0.0%	0.0%	6.1%	19.6%	0.0%	0.8%	0.0%	28.7%
1996-1998	924		7.1%	0.4%	0.1%	0.7%	1.0%	2.9%	5.4%	0.0%	4.4%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.9%	15.7%	0.0%	0.3%	0.0%	57.7%
1999-2009	812		2.1%	0.8%	0.0%	0.0%	0.3%	7.0%	4.4%	0.0%	5.7%	0.0%	0.2%	0.0%	0.5%	0.0%	0.0%	1.3%	7.8%	0.0%	1.3%	0.0%	68.4%

Appendix C.77. Percent distribution of Columbia River Summers (Columbia River Summer) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	163	2,3,4	11 0%	0 0%	1 2%	6 7%	0 0%	16 6%	0 0%	3 1%	4 9%	2 5%	11 7%	0 0%	0 0%	0 0%	4 9%	0 0%	0 0%	0 0%	4 3%	0 0%	33 1%
1980	327	3,4,5	33 3%	0 0%	0 9%	8 9%	0 0%	17 1%	0 0%	0 0%	0 0%	4 0%	1 2%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	32 4%
1981	312	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	24	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	13	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	76	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	117	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	146	2,4,5	2 1%	0 0%	0 0%	13 7%	3 4%	26 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	0 0%	0 0%	0 0%	0 0%	0 0%	11 6%	0 0%	36 3%
1989	128	2,3,5	2 3%	0 0%	3 1%	3 1%	3 1%	0 0%	11 7%	0 0%	3 9%	0 0%	10 9%	0 0%	5 5%	0 0%	0 0%	0 0%	0 0%	0 0%	5 5%	0 0%	50 8%
1990	422	2,3,4	7 3%	0 0%	0 0%	4 7%	0 0%	32 2%	0 0%	0 0%	1 2%	2 1%	3 3%	0 0%	10 9%	0 0%	1 7%	0 0%	0 0%	0 0%	4 3%	0 0%	32 2%
1991	594	2,3,4,5	4 9%	0 0%	0 0%	2 7%	0 0%	6 9%	0 8%	0 0%	0 0%	0 7%	3 4%	0 0%	4 0%	0 0%	2 0%	0 0%	0 0%	0 0%	4 9%	0 5%	69 2%
1992	282	2,3,4,5	14 5%	0 0%	0 0%	3 5%	0 0%	15 2%	0 0%	0 0%	0 7%	2 1%	1 1%	0 0%	6 7%	0 0%	0 0%	0 0%	1 4%	0 0%	1 4%	0 0%	53 2%
1993	203	2,3,4,5	7 4%	0 0%	0 0%	1 5%	0 0%	14 8%	2 0%	0 0%	0 0%	0 0%	2 5%	0 0%	5 4%	0 0%	1 5%	0 0%	0 0%	0 0%	3 4%	0 0%	61 6%
1994	32	2,3,4,5	15 6%	0 0%	0 0%	0 0%	15 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	62 5%
1995	148	2,3,4,5	2 7%	0 0%	0 0%	0 0%	0 0%	4 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	89 2%
1996	346	2,3,4,5	13 9%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	0 0%	2 9%	0 0%	2 9%	0 0%	0 9%	0 0%	1 2%	0 0%	4 0%	2 3%	69 4%
1997	1228	2,3,4,5	8 1%	0 1%	3 4%	0 2%	1 1%	1 9%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	3 1%	0 0%	0 0%	0 0%	0 2%	0 0%	1 1%	0 5%	80 1%
1998	1460	2,3,4,5	8 4%	0 1%	0 9%	0 5%	1 8%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	4 8%	0 4%	80 7%
1999	710	2,3,4,5	10 3%	3 0%	2 1%	0 7%	2 4%	0 7%	4 4%	0 0%	0 0%	0 0%	0 6%	0 0%	8 7%	0 0%	0 4%	0 0%	0 0%	0 0%	1 4%	3 4%	62 0%
2000	1931	2,3,4,5	18 4%	1 0%	2 5%	0 4%	2 7%	5 1%	6 5%	0 0%	0 2%	0 0%	0 5%	0 0%	3 7%	0 0%	1 7%	0 1%	0 2%	0 0%	1 0%	2 7%	53 2%
2001	6667	2,3,4,5	12 9%	2 7%	1 3%	0 5%	1 4%	13 2%	2 5%	0 0%	0 2%	0 0%	0 0%	0 0%	16 5%	0 0%	3 7%	0 0%	0 6%	0 0%	0 7%	1 6%	42 1%
2002	10425	2,3,4,5	21 6%	0 0%	1 4%	12 3%	1 6%	15 2%	1 2%	0 0%	0 1%	0 0%	0 0%	0 0%	8 4%	0 0%	3 4%	0 0%	0 0%	0 0%	1 0%	2 2%	31 3%
2003	7230	2,3,4,5	25 8%	0 4%	1 0%	11 1%	2 0%	12 2%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	6 4%	0 0%	1 0%	0 0%	0 1%	0 0%	2 9%	5 8%	30 9%
2004	4536	2,3,4,5	13 1%	0 3%	1 1%	5 1%	1 3%	12 5%	1 3%	0 0%	0 2%	0 0%	0 0%	0 0%	10 3%	0 0%	1 5%	0 0%	0 2%	0 0%	7 8%	14 7%	30 6%
2005	9655	2,3,4,5	8 3%	0 0%	0 7%	5 6%	2 1%	10 4%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	5 9%	0 0%	0 5%	0 0%	0 0%	0 0%	7 0%	7 6%	51 1%
2006	3641	2,3,4,5	10 8%	0 1%	0 5%	3 5%	1 1%	11 1%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	2 9%	0 0%	0 4%	0 2%	0 1%	0 0%	13 3%	9 8%	45 1%
2007	4664	2,3,4,5	9 4%	0 8%	1 1%	1 2%	1 8%	6 0%	1 1%	0 0%	0 1%	0 0%	0 0%	0 0%	3 6%	0 0%	0 4%	0 0%	0 1%	0 0%	9 6%	11 0%	53 9%
2008	1507	2,3,4,5	6 3%	0 3%	0 4%	1 0%	0 3%	4 3%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 3%	0 0%	0 2%	0 0%	22 8%	9 8%	49 0%
2009	924	3,4,5	6 6%	0 3%	0 2%	1 4%	0 6%	11 5%	11 3%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 0%	0 3%	0 0%	0 0%	0 0%	3 4%	4 9%	57 0%
1979-2009	2390		11 5%	0 4%	0 9%	3 7%	1 8%	9 9%	2 0%	0 1%	0 6%	0 5%	1 6%	0 0%	5 0%	0 0%	1 0%	0 1%	0 2%	0 0%	5 1%	3 2%	52 4%
1979-1984	245		22 2%	0 0%	1 1%	7 8%	0 0%	16 8%	0 0%	1 5%	2 5%	3 2%	6 4%	0 0%	0 8%	0 0%	2 5%	0 0%	0 0%	0 0%	2 5%	0 0%	32 8%
1985-1995	244		7 1%	0 0%	0 4%	3 7%	2 8%	12 6%	1 8%	0 0%	0 7%	0 6%	2 6%	0 0%	5 1%	0 0%	0 6%	0 2%	0 2%	0 0%	4 7%	0 1%	56 9%
1996-1998	1011		10 1%	0 2%	1 4%	0 2%	1 0%	0 6%	0 2%	0 0%	0 8%	0 0%	1 0%	0 0%	2 6%	0 0%	0 3%	0 0%	0 4%	0 0%	3 3%	1 1%	76 7%
1999-2009	4717		13 0%	0 8%	1 1%	3 9%	1 6%	9 3%	3 1%	0 0%	0 1%	0 0%	0 1%	0 0%	6 4%	0 0%	1 2%	0 0%	0 1%	0 0%	6 5%	6 7%	46 0%

Appendix C.78. Percent distribution of Columbia River Summers (Columbia River Summer) total fishing mortalities among fisheries and escapement.

			AABM							ISBM													
Catch	Estimated # of	Ages	SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
Year	CWTs	Present	Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	196	2,3,4	13 8%	0 0%	1 0%	8 7%	0 0%	19 4%	0 0%	2 6%	4 6%	4 1%	10 2%	0 0%	0 5%	0 0%	4 1%	0 0%	0 0%	0 0%	3 6%	0 0%	27 6%
1980	344	3,4,5	32 8%	0 0%	0 9%	9 3%	0 0%	18 3%	0 0%	0 0%	0 0%	4 4%	1 2%	0 0%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	30 8%
1981	316	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	24	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	20	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	87	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	123	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	175	2,4,5	4 0%	0 0%	0 0%	13 1%	3 4%	30 3%	0 6%	0 0%	0 6%	0 6%	0 6%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	0 0%	9 7%	0 0%	30 3%
1989	160	2,3,5	6 9%	0 0%	2 5%	4 4%	2 5%	8 8%	10 0%	0 0%	3 8%	0 6%	8 8%	0 0%	6 9%	0 0%	0 0%	0 0%	0 0%	0 0%	4 4%	0 0%	40 6%
1990	448	2,3,4	8 0%	0 0%	0 0%	4 9%	0 0%	33 0%	0 0%	0 0%	1 1%	2 2%	3 6%	0 0%	11 2%	0 0%	1 6%	0 0%	0 0%	0 0%	4 0%	0 0%	30 4%
1991	607	2,3,4,5	5 1%	0 0%	0 0%	2 8%	0 0%	7 6%	0 8%	0 0%	0 0%	0 7%	3 5%	0 0%	4 3%	0 0%	2 1%	0 0%	0 0%	0 0%	4 9%	0 5%	67 7%
1992	302	2,3,4,5	17 5%	0 0%	0 0%	3 6%	0 0%	15 9%	0 0%	0 0%	0 7%	2 0%	1 0%	0 0%	6 6%	0 0%	0 0%	0 0%	1 7%	0 0%	1 3%	0 0%	49 7%
1993	210	2,3,4,5	8 1%	0 0%	0 0%	1 4%	0 0%	15 7%	1 9%	0 0%	0 0%	0 0%	2 9%	0 0%	5 7%	0 0%	1 4%	0 0%	0 0%	0 0%	3 3%	0 0%	59 5%
1994	37	2,3,4,5	18 9%	0 0%	0 0%	0 0%	21 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	5 4%	0 0%	54 1%
1995	163	2,3,4,5	4 9%	0 0%	0 0%	0 0%	0 0%	8 6%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	1 8%	0 0%	0 0%	2 5%	0 0%	0 0%	0 0%	0 0%	81 0%
1996	405	2,3,4,5	22 5%	0 7%	0 0%	0 2%	0 2%	0 7%	0 0%	0 0%	2 7%	0 0%	3 2%	0 0%	2 7%	0 0%	0 7%	0 0%	1 2%	0 0%	3 5%	2 2%	59 3%
1997	1272	2,3,4,5	9 2%	0 1%	3 9%	0 2%	1 7%	2 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	3 5%	0 0%	0 0%	0 0%	0 2%	0 0%	1 1%	0 5%	77 4%
1998	1502	2,3,4,5	9 4%	0 3%	1 1%	0 5%	2 6%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	0 4%	78 4%
1999	828	2,3,4,5	14 4%	4 3%	3 6%	0 7%	3 4%	0 6%	4 6%	0 0%	0 0%	0 0%	0 8%	0 0%	9 5%	0 0%	0 5%	0 0%	0 0%	0 0%	1 2%	3 1%	53 1%
2000	2292	2,3,4,5	24 6%	1 3%	3 4%	0 5%	3 8%	4 8%	6 5%	0 0%	0 2%	0 0%	0 6%	0 0%	4 1%	0 0%	1 7%	0 1%	0 3%	0 0%	0 9%	2 5%	44 9%
2001	7357	2,3,4,5	15 2%	4 0%	1 3%	0 5%	1 8%	12 3%	2 7%	0 0%	0 2%	0 0%	0 0%	0 0%	16 9%	0 0%	3 6%	0 0%	0 9%	0 0%	0 7%	1 6%	38 2%
2002	11308	2,3,4,5	22 9%	0 0%	1 5%	12 6%	2 2%	14 9%	1 4%	0 0%	0 1%	0 0%	0 0%	0 0%	8 7%	0 0%	3 5%	0 0%	0 0%	0 0%	1 0%	2 2%	28 8%
2003	7899	2,3,4,5	27 3%	0 7%	1 1%	11 8%	2 5%	11 7%	0 2%	0 0%	0 1%	0 0%	0 0%	0 0%	6 7%	0 0%	1 0%	0 0%	0 1%	0 0%	2 7%	5 8%	28 3%
2004	4893	2,3,4,5	14 3%	0 3%	1 1%	5 4%	1 9%	12 2%	1 4%	0 0%	0 2%	0 0%	0 0%	0 0%	10 7%	0 0%	1 5%	0 0%	0 3%	0 0%	7 4%	14 8%	28 4%
2005	10087	2,3,4,5	9 1%	0 0%	0 7%	6 0%	2 7%	10 3%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3%	0 0%	0 5%	0 0%	0 0%	0 0%	6 8%	7 8%	48 9%
2006	3784	2,3,4,5	11 8%	0 1%	0 5%	3 6%	1 3%	11 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	3 1%	0 0%	0 4%	0 2%	0 1%	0 0%	13 0%	10 2%	43 4%
2007	4858	2,3,4,5	10 2%	1 1%	1 2%	1 3%	2 2%	6 0%	1 2%	0 0%	0 1%	0 0%	0 0%	0 0%	3 7%	0 0%	0 4%	0 0%	0 1%	0 0%	9 3%	11 4%	51 8%
2008	1575	2,3,4,5	7 6%	0 4%	0 4%	1 1%	0 3%	4 4%	3 9%	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 3%	0 0%	0 3%	0 0%	22 1%	10 3%	46 9%
2009	968	3,4,5	8 4%	0 3%	0 2%	1 4%	0 7%	11 3%	12 2%	0 0%	0 0%	0 0%	0 0%	0 0%	2 5%	0 0%	0 3%	0 0%	0 0%	0 0%	3 2%	5 1%	54 4%
1979-2009	2570		13 6%	0 6%	1 0%	3 9%	2 3%	10 8%	2 1%	0 1%	0 6%	0 6%	1 6%	0 0%	5 3%	0 0%	1 0%	0 1%	0 2%	0 0%	4 8%	3 3%	48 1%
1979-1984	270		23 3%	0 0%	0 9%	9 0%	0 0%	18 9%	0 0%	1 3%	2 3%	4 2%	5 7%	0 0%	1 1%	0 0%	2 0%	0 0%	0 0%	0 0%	2 1%	0 0%	29 2%
1985-1995	263		9 2%	0 0%	0 3%	3 8%	3 4%	15 0%	1 7%	0 0%	0 8%	0 8%	2 7%	0 0%	5 4%	0 0%	0 6%	0 3%	0 2%	0 0%	4 1%	0 1%	51 7%
1996-1998	1060		13 7%	0 4%	1 7%	0 3%	1 5%	0 9%	0 2%	0 0%	0 9%	0 0%	1 1%	0 0%	2 7%	0 0%	0 2%	0 0%	0 5%	0 0%	3 1%	1 0%	71 7%
1999-2009	5077		15 1%	1 1%	1 4%	4 1%	2 1%	9 0%	3 2%	0 0%	0 1%	0 0%	0 1%	0 0%	6 8%	0 0%	1 2%	0 0%	0 2%	0 0%	6 2%	6 8%	42 5%

Appendix C.79. Percent distribution of Taku River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	210	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	298	3,4,5	3 0%	3 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 6%
1981	446	3,4,5,6	5 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 8%
1982	267	3,4,5,6	5 6%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 8%
1983	168	3,4,5,6	2 4%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	96 4%
1984	353	3,4,5,6	9 6%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 4%
1985	345	4,5,6	2 9%	0 0%	8 1%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 1%
1986	164	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	50	6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	63	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	168	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	376	3,4,5	1 9%	1 1%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	95 2%
1997	634	3,4,5,6	0 5%	1 9%	8 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 0%
1998	389	3,4,5,6	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	99 2%
1999	593	3,4,5,6	1 3%	2 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 3%
2000	1101	3,4,5,6	1 9%	0 7%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	95 4%
2001	981	3,4,5,6	3 4%	2 2%	3 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 3%
2002	904	3,4,5,6	2 7%	2 1%	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 8%
2003	893	3,4,5,6	1 6%	1 5%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	95 9%
2004	2137	3,4,5,6	2 8%	4 1%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 3%
2005	1210	3,4,5,6	3 6%	29 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 0%
2006	881	3,4,5,6	3 4%	16 2%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	77 4%
2007	368	3,4,5,6	6 5%	5 2%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 2%
2008	609	4,5,6	4 8%	4 3%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 6%
2009	254	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	682		3 4%	4 2%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 0%
1979-1984	306		5 2%	1 8%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 4%
1985-1995	345		2 9%	0 0%	8 1%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	88 1%
1996-1998	466		1 0%	1 0%	3 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 5%
1999-2009	968		3 2%	6 7%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 6%

Appendix C.80. Percent distribution of Taku River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	216	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	300	3,4,5	3 3%	3 0%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 0%
1981	447	3,4,5,6	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 6%
1982	270	3,4,5,6	6 3%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 7%
1983	170	3,4,5,6	2 9%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	95 3%
1984	356	3,4,5,6	10 4%	2 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 6%
1985	346	4,5,6	2 9%	0 0%	8 4%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 9%
1986	198	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	50	6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	71	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	184	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	383	3,4,5	1 8%	2 1%	2 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	93 5%
1997	651	3,4,5,6	0 6%	2 9%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 6%
1998	391	3,4,5,6	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	98 7%
1999	627	3,4,5,6	2 1%	4 8%	4 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 2%
2000	1111	3,4,5,6	2 2%	1 0%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	94 5%
2001	988	3,4,5,6	3 8%	3 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 8%
2002	938	3,4,5,6	3 5%	2 8%	7 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	86 6%
2003	914	3,4,5,6	2 1%	2 6%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	93 7%
2004	2208	3,4,5,6	3 2%	6 3%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 4%
2005	1292	3,4,5,6	3 6%	33 0%	3 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 0%
2006	910	3,4,5,6	3 7%	18 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	74 9%
2007	400	3,4,5,6	7 8%	10 8%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	80 3%
2008	618	4,5,6	4 9%	5 3%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	89 3%
2009	254	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	702		3 8%	5 4%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 9%
1979-1984	309		5 7%	1 9%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 7%
1985-1995	346		2 9%	0 0%	8 4%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 9%
1996-1998	475		1 2%	1 7%	4 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 9%
1999-2009	1002		3 7%	8 8%	3 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 6%

Appendix C.81. Percent distribution of Unuk River reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	24	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	605	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	417	3,4,5	9 1%	0 2%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	87 1%
1988	439	3,4,5,6	5 9%	0 5%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	92 5%
1989	257	3,4,5,6	7 0%	0 8%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	90 7%
1990	157	4,5,6	21 7%	0 0%	10 2%	2 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	65 6%
1991	129	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	142	6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	1	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	24	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	123	3,4,5	9 8%	5 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 6%
1998	336	3,4,5,6	10 4%	1 8%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 5%
1999	458	3,4,5,6	8 5%	0 9%	13 5%	0 0%	1 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	74 7%
2000	613	3,4,5,6	15 0%	2 6%	13 4%	0 0%	3 3%	0 0%	0 0%	0 0%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	64 6%
2001	702	3,4,5,6	14 0%	1 0%	10 4%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	73 8%
2002	411	3,4,5,6	16 8%	0 7%	11 9%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 1%
2003	283	3,4,5,6	24 4%	0 4%	15 9%	3 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	55 5%
2004	290	3,4,5,6	13 4%	21 4%	7 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	57 2%
2005	380	3,4,5,6	33 9%	3 9%	19 2%	0 5%	3 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	38 7%
2006	377	3,4,5,6	21 0%	12 5%	11 9%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	53 1%
2007	326	3,4,5,6	32 2%	8 9%	8 6%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	48 5%
2008	173	3,4,5,6	26 6%	7 5%	1 7%	0 0%	4 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	59 5%
2009	215	3,4,5,6	20 5%	1 9%	9 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 9%
1979-2009	350		17 1%	4 2%	8 3%	0 7%	0 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	68 6%
1979-1984	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1985-1995	318		10 9%	0 4%	3 6%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	83 9%
1996-1998	230		10 1%	3 7%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	84 5%
1999-2009	384		20 6%	5 6%	11 3%	0 8%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	60 1%

Appendix C.82. Percent distribution of Unuk River total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1983	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1984	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985	44	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986	638	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	428	3,4,5	11.0%	0.5%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.8%
1988	445	3,4,5,6	6.7%	0.9%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.2%
1989	270	3,4,5,6	9.6%	2.2%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	86.3%
1990	181	4,5,6	28.2%	0.6%	11.6%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.9%
1991	136	5,6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	143	6	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	2	3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	36	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	144	3,4,5	13.9%	8.3%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%
1998	356	3,4,5,6	12.9%	3.1%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.8%
1999	517	3,4,5,6	11.8%	1.4%	17.6%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.2%
2000	670	3,4,5,6	17.3%	4.0%	14.5%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.1%
2001	732	3,4,5,6	15.4%	1.1%	11.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.8%
2002	435	3,4,5,6	18.6%	1.4%	13.1%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%
2003	323	3,4,5,6	28.5%	0.3%	18.6%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.6%
2004	368	3,4,5,6	14.4%	32.1%	8.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.1%
2005	433	3,4,5,6	35.8%	4.6%	20.8%	0.5%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.9%
2006	420	3,4,5,6	22.4%	16.0%	12.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.6%
2007	371	3,4,5,6	32.3%	13.7%	8.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	42.6%
2008	197	3,4,5,6	32.5%	8.1%	2.0%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.3%
2009	237	3,4,5,6	24.5%	3.0%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.6%
1979-2009	384		19.8%	6.0%	9.7%	0.8%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.6%
1979-1984	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1985-1995	331		13.9%	1.0%	3.9%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.8%
1996-1998	250		13.4%	5.7%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	76.0%
1999-2009	428		23.0%	7.8%	12.6%	0.8%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	53.8%

Appendix C.83. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							PSSM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			Esc.
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	5348	2,3,4	17.8%	0.3%	0.6%	7.5%	0.1%	12.5%	0.0%	0.4%	0.1%	4.0%	4.4%	0.0%	1.3%	0.1%	1.1%	0.1%	0.2%	0.0%	22.8%	0.5%	26.4%
1980	3565	2,3,4,5	19.9%	0.6%	0.5%	6.4%	0.1%	7.3%	0.0%	0.4%	0.6%	1.6%	1.9%	0.0%	1.1%	0.0%	0.8%	0.0%	0.4%	0.0%	6.3%	0.7%	51.4%
1981	2268	2,3,4,5	16.0%	0.0%	0.4%	5.6%	0.0%	3.8%	0.2%	0.2%	0.2%	1.1%	1.8%	0.0%	0.5%	0.0%	0.8%	0.0%	0.2%	0.0%	3.6%	0.0%	66.7%
1982	1359	2,3,4,5	6.4%	0.4%	0.2%	3.4%	0.1%	4.6%	0.0%	0.0%	0.0%	0.2%	1.5%	0.0%	0.6%	0.0%	0.7%	0.0%	0.0%	0.0%	2.5%	0.0%	79.2%
1983	844	2,3,4,5	15.6%	0.2%	0.0%	10.2%	0.2%	3.7%	0.0%	0.0%	0.2%	1.8%	3.6%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	0.0%	55.9%
1984	1723	2,3,4,5	15.4%	1.2%	0.1%	9.5%	0.2%	7.7%	0.2%	0.0%	0.2%	2.1%	2.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.6%	0.0%	9.6%	1.3%	49.3%
1985	3519	2,3,4,5	8.7%	1.3%	0.2%	8.2%	0.0%	7.5%	0.1%	0.0%	0.1%	0.7%	2.6%	0.0%	0.4%	0.0%	0.5%	0.1%	0.4%	0.0%	31.5%	3.6%	34.0%
1986	5262	2,3,4,5	9.7%	0.6%	0.1%	7.8%	0.1%	7.0%	0.1%	0.0%	0.1%	1.7%	1.4%	0.0%	0.8%	0.0%	0.2%	0.0%	0.4%	0.0%	33.8%	1.8%	34.5%
1987	4160	2,3,4,5	15.0%	0.7%	0.3%	11.8%	0.1%	7.0%	0.4%	0.0%	0.0%	1.7%	0.8%	3.0%	1.2%	0.0%	0.4%	0.0%	0.5%	0.0%	35.8%	2.8%	21.5%
1988	2804	2,3,4,5	9.9%	0.7%	0.4%	8.1%	0.0%	10.6%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%	1.9%	0.0%	0.5%	0.1%	0.1%	0.0%	45.0%	2.3%	19.1%
1989	1231	2,3,4,5	11.9%	0.0%	0.2%	14.9%	0.6%	7.7%	0.0%	0.0%	0.0%	0.2%	1.5%	0.0%	1.2%	0.0%	0.3%	0.0%	0.0%	0.0%	42.5%	1.6%	17.3%
1990	678	2,3,4,5	13.6%	0.0%	1.0%	9.9%	0.0%	8.1%	0.0%	0.0%	0.0%	0.7%	0.7%	0.0%	1.2%	0.0%	0.4%	0.0%	0.7%	0.0%	33.8%	1.2%	28.6%
1991	268	2,3,4,5	6.3%	0.4%	2.6%	6.0%	0.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	19.8%	4.1%	51.1%
1992	302	2,3,4,5	3.0%	0.0%	0.0%	3.0%	0.0%	10.6%	1.0%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	17.2%	6.0%	55.6%
1993	525	2,3,4,5	10.9%	0.0%	0.0%	6.7%	0.6%	17.5%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.7%	0.0%	1.3%	0.0%	0.0%	0.0%	15.6%	4.4%	40.2%
1994	939	2,3,4,5	9.3%	0.9%	0.0%	7.6%	1.6%	6.5%	0.6%	0.0%	0.0%	0.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	19.2%	3.3%	50.1%
1995	694	2,3,4,5	8.1%	0.1%	1.7%	2.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.7%	0.0%	0.7%	0.0%	0.0%	0.0%	9.9%	3.6%	67.3%
1996	762	2,3,4,5	2.9%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.8%	0.0%	0.0%	0.0%	0.3%	0.0%	22.4%	5.1%	68.0%
1997	979	2,3,4,5	11.1%	0.3%	2.6%	4.6%	0.7%	0.6%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.8%	10.1%	47.8%
1998	703	2,3,4,5	8.5%	1.6%	2.3%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.9%	8.7%	60.9%
1999	1336	2,3,4,5	10.8%	0.0%	2.5%	7.3%	0.7%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.1%	0.0%	0.0%	0.0%	13.9%	8.1%	55.2%
2000	890	2,3,4,5	19.3%	0.1%	2.2%	0.0%	0.0%	1.3%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	20.7%	5.4%	47.5%
2001	1704	2,3,4,5	3.9%	0.0%	0.7%	0.0%	0.4%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.5%	0.0%	0.0%	0.0%	13.6%	7.7%	70.3%
2002	2196	2,3,4,5	14.3%	0.0%	2.3%	1.4%	0.6%	1.4%	0.5%	0.0%	0.4%	0.0%	0.1%	0.0%	1.7%	0.0%	1.0%	0.0%	0.0%	0.0%	18.3%	7.4%	50.6%
2003	2334	2,3,4,5	13.5%	0.9%	0.6%	4.7%	0.9%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.6%	0.0%	0.0%	0.0%	15.1%	6.8%	55.2%
2004	2350	2,3,4,5	8.9%	1.3%	0.7%	3.2%	1.4%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	1.4%	0.0%	0.1%	0.0%	15.9%	6.2%	57.7%
2005	2502	2,3,4,5	13.8%	1.4%	0.9%	8.9%	4.4%	3.5%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	1.2%	0.0%	0.0%	0.0%	13.8%	7.0%	42.1%
2006	1638	2,3,4,5	12.9%	1.6%	1.3%	6.7%	1.7%	1.6%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.4%	0.0%	0.2%	0.0%	13.4%	15.2%	41.6%
2007	525	2,3,4,5	11.0%	0.2%	0.8%	5.9%	5.0%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.3%	0.0%	0.0%	0.0%	12.8%	14.1%	48.9%
2008	785	2,3,4,5	8.7%	0.3%	0.0%	2.3%	1.8%	1.9%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.8%	0.0%	0.0%	0.0%	20.0%	8.4%	51.2%
2009	1150	2,3,4,5	17.1%	1.1%	1.2%	8.1%	1.4%	0.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	1.0%	0.0%	0.7%	0.0%	26.6%	2.1%	38.0%
1979-2009	1785		11.4%	0.5%	0.9%	5.9%	0.7%	4.9%	0.5%	0.0%	0.1%	0.5%	0.9%	0.0%	0.8%	0.0%	0.6%	0.0%	0.2%	0.0%	19.3%	4.8%	47.8%
1979-1984	2518		15.2%	0.5%	0.3%	7.1%	0.1%	6.6%	0.1%	0.2%	0.2%	1.8%	2.6%	0.0%	0.7%	0.0%	0.6%	0.0%	0.2%	0.0%	8.8%	0.4%	54.7%
1985-1995	1853		9.7%	0.4%	0.6%	7.8%	0.3%	8.8%	0.2%	0.0%	0.0%	0.5%	1.1%	0.0%	0.9%	0.0%	0.5%	0.0%	0.3%	0.0%	27.7%	3.1%	38.1%
1996-1998	815		7.5%	0.6%	1.6%	2.4%	0.4%	0.3%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	19.4%	8.0%	50.9%
1999-2009	1583		12.2%	0.6%	1.2%	4.4%	1.7%	1.4%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.9%	0.0%	0.8%	0.0%	0.1%	0.0%	16.7%	8.0%	50.6%

Appendix C.84. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM												Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal		
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	5572	2,3,4	18 1%	0 3%	0 6%	7 9%	0 1%	13 2%	0 0%	0 4%	0 1%	4 1%	4 4%	0 0%	1 3%	0 1%	1 2%	0 1%	0 3%	0 0%	22 1%	0 5%	25 3%
1980	3713	2,3,4,5	20 6%	0 6%	0 6%	6 9%	0 1%	7 9%	0 0%	0 5%	0 6%	1 7%	1 9%	0 0%	1 1%	0 0%	0 8%	0 0%	0 4%	0 0%	6 2%	0 7%	49 4%
1981	2330	2,3,4,5	16 9%	0 0%	0 4%	5 9%	0 0%	4 1%	0 2%	0 2%	0 2%	1 1%	1 8%	0 0%	0 6%	0 0%	0 9%	0 0%	0 2%	0 0%	3 5%	0 0%	64 0%
1982	1437	2,3,4,5	8 5%	0 4%	0 3%	4 2%	0 2%	5 6%	0 0%	0 0%	0 0%	0 3%	1 6%	0 0%	0 8%	0 0%	0 7%	0 0%	0 0%	0 0%	2 5%	0 0%	74 9%
1983	963	2,3,4,5	21 8%	0 3%	0 0%	11 2%	0 2%	3 9%	0 0%	0 0%	0 2%	2 0%	3 4%	0 0%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	7 5%	0 0%	49 0%
1984	1996	2,3,4,5	20 4%	1 2%	0 2%	10 5%	0 2%	8 4%	0 3%	0 0%	0 2%	2 3%	2 3%	0 0%	0 2%	0 0%	0 0%	0 0%	1 1%	0 0%	8 8%	1 3%	42 6%
1985	3939	2,3,4,5	12 3%	2 3%	0 3%	8 6%	0 0%	7 8%	0 2%	0 0%	0 1%	0 8%	2 5%	0 0%	0 5%	0 0%	0 5%	0 1%	0 5%	0 0%	29 7%	3 6%	30 4%
1986	5648	2,3,4,5	11 4%	1 4%	0 1%	8 1%	0 1%	7 4%	0 1%	0 0%	0 1%	1 7%	1 4%	0 0%	0 8%	0 0%	0 2%	0 1%	0 5%	0 0%	32 6%	1 8%	32 1%
1987	4694	2,3,4,5	19 1%	1 3%	0 3%	12 3%	0 1%	7 6%	0 4%	0 0%	0 0%	1 8%	0 7%	0 0%	1 2%	0 1%	0 4%	0 0%	0 5%	0 0%	32 7%	2 6%	19 0%
1988	3005	2,3,4,5	11 0%	1 5%	0 4%	8 6%	0 0%	11 6%	0 0%	0 0%	0 0%	0 6%	0 6%	0 0%	2 0%	0 0%	0 6%	0 1%	0 2%	0 0%	42 8%	2 3%	17 8%
1989	1315	2,3,4,5	14 3%	0 0%	0 2%	15 3%	0 5%	8 1%	0 0%	0 0%	0 0%	0 2%	1 4%	0 0%	1 2%	0 0%	0 3%	0 0%	0 0%	0 0%	40 5%	1 7%	16 2%
1990	708	2,3,4,5	14 1%	0 0%	1 1%	10 6%	0 0%	8 8%	0 0%	0 0%	0 0%	0 7%	0 7%	0 0%	1 3%	0 0%	0 4%	0 0%	0 8%	0 0%	32 8%	1 3%	27 4%
1991	294	2,3,4,5	8 2%	1 0%	3 4%	6 5%	0 0%	10 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 7%	4 4%	46 6%
1992	326	2,3,4,5	3 7%	0 0%	0 0%	3 7%	0 0%	12 6%	1 2%	0 0%	0 0%	0 0%	3 1%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	16 9%	6 7%	51 5%
1993	604	2,3,4,5	15 6%	0 0%	0 0%	7 5%	0 5%	19 4%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	1 7%	0 0%	1 2%	0 0%	0 7%	0 0%	14 1%	4 3%	34 9%
1994	996	2,3,4,5	10 8%	2 0%	0 0%	7 9%	1 6%	6 9%	0 6%	0 0%	0 0%	0 2%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	18 4%	3 4%	47 2%
1995	745	2,3,4,5	10 2%	0 3%	2 4%	2 4%	0 0%	6 6%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 7%	0 0%	0 7%	0 0%	0 0%	0 0%	9 7%	3 9%	62 7%
1996	796	2,3,4,5	4 5%	0 0%	0 0%	0 1%	0 3%	0 1%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 8%	0 0%	0 0%	0 0%	0 4%	0 0%	22 6%	5 9%	65 1%
1997	1041	2,3,4,5	12 8%	0 4%	3 3%	5 0%	1 2%	0 7%	0 1%	0 0%	0 0%	0 2%	0 0%	0 0%	1 1%	0 0%	0 0%	0 0%	0 0%	0 0%	20 0%	10 5%	45 0%
1998	769	2,3,4,5	10 5%	3 4%	2 9%	3 1%	0 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	14 4%	9 5%	55 7%
1999	1434	2,3,4,5	14 2%	0 0%	2 7%	7 7%	0 8%	0 0%	0 3%	0 0%	0 5%	0 0%	0 0%	0 0%	0 6%	0 0%	0 1%	0 0%	0 0%	0 0%	13 3%	8 4%	51 5%
2000	1017	2,3,4,5	26 1%	0 1%	3 2%	0 0%	0 0%	1 5%	2 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 2%	0 0%	0 0%	0 0%	18 5%	5 1%	41 6%
2001	1799	2,3,4,5	5 4%	0 0%	1 1%	0 0%	0 6%	0 8%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 5%	0 0%	0 0%	0 0%	13 7%	8 9%	66 6%
2002	2361	2,3,4,5	16 3%	0 0%	2 5%	1 6%	0 7%	1 4%	0 6%	0 0%	0 5%	0 0%	1 1%	0 0%	1 9%	0 0%	1 0%	0 0%	0 0%	0 0%	17 6%	7 8%	47 1%
2003	2468	2,3,4,5	15 3%	1 1%	0 6%	5 2%	1 3%	0 7%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 6%	0 0%	0 0%	0 0%	14 5%	7 1%	52 2%
2004	2537	2,3,4,5	10 8%	2 3%	0 8%	3 7%	2 0%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 0%	0 0%	1 5%	0 0%	0 2%	0 0%	15 5%	6 7%	53 5%
2005	2670	2,3,4,5	14 6%	1 8%	0 9%	9 3%	5 6%	3 4%	2 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	1 3%	0 0%	0 0%	0 0%	13 3%	7 2%	39 5%
2006	1724	2,3,4,5	13 9%	1 9%	1 4%	6 8%	2 0%	1 5%	2 1%	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 4%	0 0%	0 3%	0 0%	13 0%	15 8%	39 6%
2007	574	2,3,4,5	11 8%	0 2%	1 2%	5 7%	6 8%	1 2%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	1 4%	0 0%	0 0%	0 0%	12 2%	15 5%	42 9%
2008	879	2,3,4,5	12 9%	0 5%	0 0%	2 8%	1 9%	1 8%	3 8%	0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 0%	0 8%	0 0%	0 0%	0 0%	19 0%	9 6%	45 7%
2009	1324	2,3,4,5	21 5%	1 3%	1 7%	9 1%	2 2%	0 5%	1 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	1 1%	0 0%	1 1%	0 0%	24 2%	2 0%	33 0%
1979-2009	1925		13 8%	0 8%	1 1%	6 4%	0 9%	5 4%	0 6%	0 0%	0 1%	0 6%	0 9%	0 0%	0 9%	0 0%	0 6%	0 0%	0 2%	0 0%	18 4%	5 1%	44 2%
1979-1984	2668		17 7%	0 5%	0 3%	7 8%	0 1%	7 2%	0 1%	0 2%	0 2%	1 9%	2 6%	0 0%	0 7%	0 0%	0 6%	0 0%	0 3%	0 0%	8 5%	0 4%	50 9%
1985-1995	2025		11 9%	0 9%	0 8%	8 3%	0 3%	9 7%	0 2%	0 0%	0 0%	0 5%	1 1%	0 0%	0 9%	0 0%	0 4%	0 0%	0 3%	0 0%	26 3%	3 3%	35 1%
1996-1998	869		9 3%	1 3%	2 0%	2 7%	0 6%	0 3%	0 0%	0 0%	0 0%	0 1%	0 1%	0 0%	0 6%	0 0%	0 0%	0 0%	0 1%	0 0%	19 0%	8 6%	55 2%
1999-2009	1708		14 8%	0 8%	1 5%	4 7%	2 2%	1 3%	1 4%	0 0%	0 1%	0 0%	0 1%	0 0%	1 0%	0 0%	0 8%	0 0%	0 1%	0 0%	15 9%	8 6%	46 6%

Appendix C.85. Percent distribution of University Of Washington Accelerated reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	Esc.
1979	3752	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	0.1%	1.7%	4.4%	0.3%	4.1%	0.0%	1.8%	0.0%	0.5%	6.6%	38.2%	0.0%	0.0%	0.0%	27.4%
1980	4308	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.0%	7.1%	0.1%	0.3%	5.0%	0.2%	1.4%	0.0%	1.3%	0.0%	0.0%	12.8%	49.0%	0.0%	0.0%	0.2%	22.3%
1981	3460	2,3,4,5	0.0%	0.0%	0.0%	0.6%	0.0%	10.2%	0.1%	0.6%	4.9%	0.0%	4.0%	0.0%	2.3%	0.0%	0.3%	11.7%	45.5%	0.0%	0.0%	0.0%	19.9%
1982	3299	2,3,4,5	0.0%	0.1%	0.0%	0.0%	0.0%	16.0%	0.2%	0.2%	3.8%	0.3%	0.9%	0.0%	2.3%	0.0%	0.4%	12.8%	29.4%	0.0%	1.2%	0.0%	32.3%
1983	2889	2,3,4,5	0.0%	0.0%	0.0%	0.1%	0.0%	10.6%	0.1%	0.7%	3.1%	1.0%	1.7%	0.0%	1.3%	0.0%	0.2%	19.2%	30.4%	0.0%	4.6%	0.0%	27.2%
1984	1708	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	19.2%	0.2%	0.5%	4.4%	0.6%	1.0%	0.0%	1.9%	0.0%	0.0%	19.9%	23.9%	0.0%	3.5%	0.0%	24.9%
1985	759	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	14.8%	1.3%	0.0%	5.0%	0.0%	5.3%	0.0%	2.2%	0.0%	0.0%	6.2%	23.7%	0.0%	9.2%	0.0%	32.3%
1986	771	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	18.9%	0.9%	0.0%	3.9%	0.0%	8.2%	0.0%	1.4%	0.0%	0.0%	20.4%	18.9%	0.0%	5.6%	0.0%	21.8%
1987	964	3,4,5	0.3%	0.0%	0.0%	0.0%	0.0%	10.8%	1.5%	1.3%	4.7%	0.3%	0.3%	0.0%	4.0%	0.0%	0.2%	22.8%	13.7%	0.0%	25.5%	0.0%	14.5%
1988	594	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	43	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	2434		0.0%	0.0%	0.0%	0.1%	0.0%	13.6%	0.5%	0.6%	4.3%	0.3%	3.0%	0.0%	2.1%	0.0%	0.2%	14.7%	30.3%	0.0%	5.5%	0.0%	24.7%
1979-1984	3236		0.0%	0.0%	0.0%	0.1%	0.0%	13.0%	0.2%	0.7%	4.3%	0.4%	2.2%	0.0%	1.8%	0.0%	0.2%	13.8%	36.1%	0.0%	1.5%	0.0%	25.7%
1985-1995	831		0.1%	0.0%	0.0%	0.0%	0.0%	14.8%	1.2%	0.4%	4.5%	0.1%	4.6%	0.0%	2.6%	0.0%	0.1%	16.5%	18.8%	0.0%	13.4%	0.0%	22.9%
1996-1998	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1999-2009	0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix C.86. Percent distribution of University Of Washington Accelerated total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	4319	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	15 3%	0 1%	1 6%	4 1%	0 3%	3 7%	0 0%	1 8%	0 0%	0 5%	7 0%	41 8%	0 0%	0 0%	0 0%	23 8%
1980	5908	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 0%	8 4%	0 1%	0 3%	3 9%	0 2%	1 2%	0 0%	1 5%	0 0%	0 0%	13 0%	54 9%	0 0%	0 0%	0 2%	16 3%
1981	4320	2,3,4,5	0 0%	0 0%	0 0%	0 6%	0 0%	10 7%	0 1%	0 5%	4 3%	0 0%	3 5%	0 0%	2 2%	0 0%	0 3%	11 1%	50 8%	0 0%	0 0%	0 0%	15 9%
1982	3882	2,3,4,5	0 0%	0 1%	0 0%	0 0%	0 0%	18 9%	0 2%	0 3%	3 5%	0 3%	0 8%	0 0%	2 6%	0 0%	0 4%	13 0%	31 5%	0 0%	1 1%	0 0%	27 4%
1983	3870	2,3,4,5	0 0%	0 0%	0 0%	0 1%	0 0%	9 7%	0 1%	0 6%	2 5%	0 9%	1 3%	0 0%	1 2%	0 0%	0 2%	20 5%	38 8%	0 0%	3 7%	0 0%	20 3%
1984	2052	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	18 2%	0 2%	0 4%	3 9%	0 5%	1 0%	0 0%	1 8%	0 0%	0 0%	19 9%	30 4%	0 0%	3 1%	0 0%	20 7%
1985	891	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	14 5%	1 2%	0 0%	4 6%	0 0%	5 1%	0 0%	2 1%	0 0%	0 0%	6 5%	30 1%	0 0%	8 4%	0 0%	27 5%
1986	951	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	19 3%	0 9%	0 0%	3 5%	0 0%	7 4%	0 0%	1 6%	0 0%	0 0%	20 4%	24 3%	0 0%	4 9%	0 0%	17 7%
1987	1037	3,4,5	0 5%	0 0%	0 0%	0 0%	0 0%	11 4%	1 4%	1 4%	4 6%	0 3%	0 3%	0 0%	4 4%	0 0%	0 2%	22 3%	14 9%	0 0%	24 9%	0 0%	13 5%
1988	616	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	44	5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1992	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1994	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1995	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1996	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1997	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1998	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1999	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2000	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2001	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1979-2009	3026		0 1%	0 0%	0 0%	0 1%	0 0%	14 0%	0 5%	0 6%	3 9%	0 3%	2 7%	0 0%	2 1%	0 0%	0 2%	14 9%	35 3%	0 0%	5 1%	0 0%	20 3%
1979-1984	4058		0 0%	0 0%	0 0%	0 1%	0 0%	13 5%	0 1%	0 6%	3 7%	0 4%	1 9%	0 0%	1 8%	0 0%	0 2%	14 1%	41 4%	0 0%	1 3%	0 0%	20 7%
1985-1995	960		0 2%	0 0%	0 0%	0 0%	0 0%	15 1%	1 2%	0 5%	4 2%	0 1%	4 2%	0 0%	2 7%	0 0%	0 1%	16 4%	23 1%	0 0%	12 7%	0 0%	19 6%
1996-1998	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
1999-2009	0		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Appendix C.87. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	3	4,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	1	2,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	82	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	67 1%	23 2%	0 0%	6 1%	0 0%	1 2%
1983	186	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 3%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	1 6%	0 0%	0 0%	11 3%	59 7%	0 0%	0 0%	0 0%	21 5%
1984	155	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	4 5%	0 0%	5 2%	0 0%	5 8%	0 0%	0 0%	2 6%	0 0%	0 0%	3 9%	25 2%	0 0%	5 2%	0 0%	47 7%
1985	312	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	0 0%	0 0%	30 8%	50 6%	0 0%	0 0%	0 0%	13 5%
1986	844	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	2 4%	0 4%	2 0%	0 0%	0 4%	0 0%	0 0%	15 3%	52 3%	0 0%	0 0%	0 0%	26 8%
1987	464	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 4%	0 0%	3 2%	0 0%	0 0%	13 6%	41 2%	0 0%	0 0%	0 0%	40 1%
1988	1606	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 8%	0 0%	2 5%	0 0%	0 2%	0 0%	1 3%	0 0%	0 2%	13 0%	48 3%	0 0%	0 0%	0 0%	33 6%
1989	895	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	1 2%	0 0%	1 0%	0 0%	6 0%	0 0%	0 2%	13 3%	40 9%	0 0%	0 3%	0 0%	35 8%
1990	441	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 0%	0 0%	0 0%	0 5%	0 0%	0 7%	0 0%	5 4%	0 0%	0 0%	15 6%	42 0%	0 0%	0 5%	0 0%	33 3%
1991	388	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	1 3%	0 0%	1 3%	0 0%	0 0%	0 0%	4 1%	0 0%	0 0%	10 8%	38 1%	0 0%	0 0%	0 0%	43 6%
1992	778	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 8%	0 0%	1 9%	0 0%	2 8%	0 0%	2 4%	0 0%	0 5%	7 1%	45 0%	0 0%	0 8%	0 0%	36 2%
1993	278	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	2 9%	0 0%	0 0%	2 9%	30 6%	0 0%	0 7%	0 0%	62 2%
1994	212	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	1 4%	43 9%	0 0%	0 0%	0 0%	51 9%
1995	388	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	29 4%	0 0%	0 0%	0 0%	69 3%
1996	340	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	42 9%	0 0%	0 0%	0 0%	55 9%
1997	267	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3 7%	40 4%	0 0%	0 0%	0 0%	55 8%
1998	126	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%	0 0%	1 6%	27 0%	0 0%	0 0%	0 0%	69 8%
1999	82	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 4%	0 0%	0 0%	2 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	30 5%	0 0%	0 0%	0 0%	64 6%
2000	86	3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	5 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 3%	37 2%	0 0%	0 0%	0 0%	54 7%
2001	46	4,5	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	161	2	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	1038	2,3	Fished	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	1014	2,3,4	0 0%	0 0%	0 0%	0 0%	0 0%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 7%	0 0%	0 1%	0 2%	9 1%	0 0%	1 7%	0 0%	84 9%
2007	865	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 5%	0 2%	17 3%	0 0%	2 2%	0 0%	78 4%
2008	232	2,3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 4%	5 6%	0 0%	5 6%	0 0%	86 2%
2009	200	3,4,5	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	10 5%	0 0%	2 5%	0 0%	87 0%
1979-2009	445		0 0%	0 0%	0 0%	0 0%	0 0%	1 3%	0 2%	0 2%	0 9%	0 3%	0 5%	0 0%	1 5%	0 0%	0 1%	9 4%	34 4%	0 0%	1 1%	0 0%	50 2%
1979-1984	141		0 0%	0 0%	0 0%	0 0%	0 0%	2 9%	0 0%	1 7%	0 8%	1 9%	0 5%	0 0%	1 4%	0 0%	0 0%	27 4%	36 0%	0 0%	3 8%	0 0%	23 5%
1985-1995	601		0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 5%	0 0%	1 3%	0 0%	1 0%	0 0%	2 3%	0 0%	0 1%	11 3%	42 0%	0 0%	0 2%	0 0%	40 6%
1996-1998	244		0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 5%	0 0%	0 0%	1 9%	36 8%	0 0%	0 0%	0 0%	60 5%
1999-2009	413		0 0%	0 0%	0 0%	0 0%	0 0%	2 2%	0 0%	0 0%	0 4%	0 0%	0 0%	0 0%	0 5%	0 0%	0 1%	0 5%	18 4%	0 0%	2 0%	0 0%	76 0%

Appendix C.88. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	3	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	1	2,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1981	9	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1982	106	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.9%	0.9%	0.0%	0.0%	0.9%	0.0%	0.0%	55.7%	34.0%	0.0%	4.7%	0.0%	0.9%
1983	211	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.4%	0.0%	0.0%	10.4%	63.5%	0.0%	0.0%	0.0%	19.0%
1984	228	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	4.4%	0.0%	4.8%	0.0%	0.0%	1.8%	0.0%	0.0%	3.5%	45.6%	0.0%	3.5%	0.0%	32.5%
1985	436	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	25.7%	60.3%	0.0%	0.0%	0.0%	9.6%
1986	956	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	2.3%	0.4%	2.0%	0.0%	0.4%	0.0%	0.0%	14.1%	56.5%	0.0%	0.0%	0.0%	23.6%
1987	731	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.4%	0.0%	2.5%	0.0%	0.0%	10.1%	60.6%	0.0%	0.0%	0.0%	25.4%
1988	1821	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%	0.0%	2.9%	0.0%	0.2%	0.0%	1.4%	0.0%	0.2%	12.6%	52.1%	0.0%	0.0%	0.0%	29.6%
1989	1018	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	1.3%	0.0%	1.0%	0.0%	6.3%	0.0%	0.2%	12.0%	46.3%	0.0%	0.3%	0.0%	31.4%
1990	514	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.4%	0.0%	0.6%	0.0%	5.8%	0.0%	0.0%	14.0%	48.1%	0.0%	0.4%	0.0%	28.6%
1991	461	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	1.3%	0.0%	1.3%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	9.8%	46.0%	0.0%	0.0%	0.0%	36.7%
1992	858	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.7%	0.0%	2.1%	0.0%	2.6%	0.0%	2.7%	0.0%	0.5%	6.8%	48.5%	0.0%	0.7%	0.0%	32.9%
1993	320	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	2.5%	39.4%	0.0%	0.6%	0.0%	54.1%
1994	248	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	1.6%	51.2%	0.0%	0.0%	0.0%	44.4%
1995	470	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	41.3%	0.0%	0.0%	0.0%	57.2%
1996	379	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	48.5%	0.0%	0.0%	0.0%	50.1%
1997	317	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	49.5%	0.0%	0.0%	0.0%	47.0%
1998	139	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	1.4%	33.8%	0.0%	0.0%	0.0%	63.3%
1999	104	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.2%	0.0%	0.0%	0.0%	51.0%
2000	96	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	43.8%	0.0%	0.0%	0.0%	49.0%
2001	57	4,5	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	No Data		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	220	2	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	1078	2,3	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	1122	2,3,4	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	0.1%	0.2%	17.6%	0.0%	1.6%	0.0%	76.7%
2007	913	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.4%	0.2%	21.6%	0.0%	2.2%	0.0%	74.3%
2008	239	2,3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	8.4%	0.0%	5.4%	0.0%	83.7%
2009	205	3,4,5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.7%	0.0%	2.4%	0.0%	84.9%
1979-2009	517		0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.2%	0.2%	0.8%	0.3%	0.5%	0.0%	1.5%	0.0%	0.1%	8.2%	42.4%	0.0%	1.0%	0.0%	43.7%
1979-1984	182		0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	1.5%	0.6%	1.9%	0.5%	0.0%	1.4%	0.0%	0.0%	23.2%	47.7%	0.0%	2.7%	0.0%	17.5%
1985-1995	712		0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.4%	0.0%	1.3%	0.0%	0.9%	0.0%	2.4%	0.0%	0.1%	10.0%	50.0%	0.0%	0.2%	0.0%	34.0%
1996-1998	278		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	1.7%	44.0%	0.0%	0.0%	0.0%	53.5%
1999-2009	446		0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.5%	0.0%	0.1%	0.5%	24.9%	0.0%	1.9%	0.0%	69.9%

Appendix C.89. Percent distribution of Willamette Spring (Willamette River Hatchery) reported catch among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	2098	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	5769	3,4,5	3 4%	0 5%	0 1%	5 8%	0 1%	2 7%	0 0%	0 0%	0 0%	0 1%	0 5%	0 0%	0 5%	0 0%	0 7%	0 0%	0 1%	0 0%	0 3%	8 0%	77 2%
1981	8056	3,4,5,6	4 4%	0 6%	0 1%	6 1%	0 0%	1 4%	0 0%	0 0%	0 0%	0 4%	0 1%	0 0%	0 4%	0 0%	0 2%	0 0%	0 0%	0 0%	1 5%	10 5%	74 3%
1982	3699	3,4,5,6	4 0%	1 1%	0 1%	6 5%	0 1%	4 0%	0 0%	0 0%	0 0%	0 1%	0 4%	0 0%	1 1%	0 0%	1 7%	0 1%	0 1%	0 0%	7 0%	24 7%	48 9%
1983	2478	3,4,5,6	12 5%	0 1%	0 0%	11 6%	0 0%	1 8%	0 0%	0 4%	0 3%	0 3%	0 0%	0 0%	1 8%	0 0%	0 4%	0 0%	0 4%	0 0%	6 3%	22 4%	41 5%
1984	3950	3,4,5,6	4 0%	0 3%	0 3%	2 2%	0 1%	1 9%	0 0%	0 0%	0 1%	0 1%	0 1%	0 0%	1 0%	0 0%	0 0%	0 0%	0 2%	0 0%	6 5%	24 5%	58 8%
1985	2532	3,4,5,6	5 1%	0 1%	0 0%	0 5%	0 0%	0 5%	0 0%	0 0%	0 0%	0 2%	0 0%	0 0%	0 3%	0 0%	0 0%	0 2%	0 0%	0 0%	18 2%	20 4%	54 7%
1986	686	3,4,5,6	3 1%	0 4%	0 0%	6 6%	0 0%	5 4%	0 6%	0 0%	0 0%	0 6%	2 5%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	9 0%	17 5%	53 6%
1987	636	3,4,5,6	9 7%	0 0%	0 6%	13 2%	0 0%	0 9%	1 3%	0 0%	0 0%	0 8%	1 1%	0 0%	2 4%	0 0%	0 0%	0 0%	0 3%	0 0%	6 1%	27 2%	36 3%
1988	1894	3,4,5,6	8 6%	0 2%	0 4%	6 2%	0 0%	3 1%	0 0%	0 0%	0 0%	0 6%	0 1%	0 0%	2 2%	0 0%	0 2%	0 0%	0 0%	0 0%	6 9%	28 6%	42 9%
1989	2636	3,4,5,6	4 4%	0 0%	0 2%	1 8%	0 0%	1 4%	0 5%	0 0%	0 5%	0 0%	0 3%	0 0%	1 5%	0 0%	0 2%	0 0%	0 1%	0 0%	12 6%	20 0%	56 6%
1990	2553	3,4,5,6	6 3%	0 3%	0 2%	1 4%	0 2%	2 1%	0 7%	0 0%	0 0%	0 2%	0 6%	0 0%	1 3%	0 0%	0 1%	0 0%	0 0%	0 0%	17 0%	27 6%	42 0%
1991	2818	3,4,5,6	3 1%	1 2%	0 6%	1 7%	0 0%	0 4%	0 2%	0 0%	0 2%	0 0%	0 2%	0 0%	0 7%	0 0%	0 2%	0 0%	0 0%	0 0%	6 0%	42 6%	43 0%
1992	2466	3,4,5,6	3 5%	1 3%	0 2%	1 7%	0 2%	2 7%	0 2%	0 0%	0 0%	0 0%	0 2%	0 0%	2 4%	0 0%	0 4%	0 0%	0 3%	0 0%	5 8%	30 6%	50 4%
1993	4792	3,4,5,6	8 1%	0 0%	0 0%	1 3%	0 1%	1 4%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	43 0%	43 5%
1994	4726	3,4,5,6	4 1%	0 3%	0 9%	0 7%	0 1%	0 7%	0 0%	0 0%	0 0%	0 2%	0 2%	0 0%	0 2%	0 0%	0 1%	0 0%	0 1%	0 0%	5 1%	38 6%	48 8%
1995	4150	3,4,5,6	2 8%	0 1%	0 3%	1 0%	0 0%	0 3%	0 1%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 2%	0 0%	0 3%	43 6%	50 9%
1996	3589	3,4,5,6	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 1%	0 0%	0 0%	0 0%	0 1%	0 0%	0 8%	33 3%	64 1%
1997	2224	3,4,5,6	3 6%	0 0%	0 0%	0 5%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	15 8%	79 0%
1998	1538	3,4,5,6	4 3%	0 1%	0 2%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 2%	0 0%	0 4%	16 4%	78 2%
1999	1710	3,4,5,6	4 3%	0 0%	0 3%	0 0%	0 0%	0 0%	0 6%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 8%	14 6%	79 3%
2000	6269	3,4,5,6	7 8%	0 1%	0 4%	0 1%	0 5%	0 4%	0 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 3%	0 0%	0 0%	0 0%	2 3%	29 3%	58 0%
2001	33970	3,4,5,6	1 4%	0 0%	0 1%	0 1%	0 1%	0 5%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 0%	0 0%	0 1%	0 0%	3 5%	23 1%	70 9%
2002	19455	3,4,5,6	1 8%	0 1%	0 1%	0 9%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 8%	0 0%	0 2%	0 0%	0 0%	0 0%	15 7%	20 0%	59 5%
2003	6751	3,4,5,6	4 8%	0 0%	0 1%	0 4%	0 2%	2 4%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	0 3%	0 0%	0 1%	0 0%	0 0%	0 0%	1 5%	15 6%	74 6%
2004	6785	3,4,5,6	2 9%	0 3%	0 1%	0 6%	0 0%	5 8%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	0 0%	0 0%	0 0%	0 0%	6 2%	20 2%	62 4%
2005	2960	3,4,5,6	2 7%	0 0%	0 1%	0 3%	0 2%	5 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 9%	0 0%	0 1%	0 0%	0 1%	0 0%	5 1%	15 5%	69 7%
2006	1903	3,4,5,6	3 0%	0 0%	0 0%	0 3%	0 6%	4 3%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 3%	0 0%	7 9%	24 5%	58 0%
2007	1537	3,4,5,6	3 9%	0 1%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 7%	0 0%	0 0%	0 0%	0 0%	0 0%	4 7%	17 7%	71 6%
2008	2185	3,4,5,6	1 3%	0 8%	0 0%	0 4%	0 0%	1 1%	0 0%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 0%	0 0%	0 0%	0 0%	19 2%	12 1%	64 6%
2009	1701	3,4,5,6	5 5%	0 1%	0 0%	0 5%	0 9%	1 8%	5 7%	0 0%	1 3%	0 0%	0 0%	0 0%	0 6%	0 0%	0 4%	0 0%	0 5%	0 0%	18 6%	8 8%	55 3%
1979-2009	4881		4 5%	0 3%	0 2%	2 4%	0 1%	1 8%	0 4%	0 0%	0 1%	0 1%	0 2%	0 0%	0 8%	0 0%	0 2%	0 0%	0 1%	0 0%	6 6%	23 2%	59 0%
1979-1984	4790		5 7%	0 5%	0 1%	6 4%	0 1%	2 4%	0 0%	0 1%	0 1%	0 2%	0 2%	0 0%	0 9%	0 0%	0 6%	0 0%	0 2%	0 0%	4 3%	18 0%	60 2%
1985-1995	2717		5 4%	0 4%	0 3%	3 3%	0 0%	1 7%	0 3%	0 0%	0 1%	0 2%	0 5%	0 0%	1 1%	0 0%	0 2%	0 0%	0 1%	0 0%	8 0%	30 9%	47 5%
1996-1998	2450		3 1%	0 0%	0 1%	0 2%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 1%	0 0%	0 2%	0 0%	0 0%	0 0%	0 1%	0 0%	0 7%	21 8%	73 8%
1999-2009	7748		3 6%	0 1%	0 1%	0 3%	0 2%	2 1%	0 6%	0 0%	0 1%	0 0%	0 0%	0 0%	0 6%	0 0%	0 1%	0 0%	0 1%	0 0%	7 8%	18 3%	65 8%

Appendix C.90. Percent distribution of Willamette Spring (Willamette River Hatchery) total fishing mortalities among fisheries and escapement.

Catch Year	Estimated # of CWTs	Ages Present	AABM							ISBM													Esc.
			SEAK			NBC		WCVI		Geo St		Canada			WA/OR coast			Puget Sound		Terminal			
			Troll	Net	Sport	Troll	Sport	Troll	Sport	Troll	Sport	Troll	Net	Sport	Troll	Net	Sport	Net	Sport	Troll	Net	Sport	
1979	2331	3,4	Failed	Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	6143	3,4,5	4.6%	0.5%	0.2%	8.0%	0.1%	3.5%	0.0%	0.0%	0.0%	0.2%	0.5%	0.0%	0.7%	0.0%	0.8%	0.0%	0.0%	0.0%	0.3%	8.0%	72.5%
1981	8470	3,4,5,6	5.4%	0.6%	0.1%	7.8%	0.0%	1.7%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	1.5%	10.8%	70.7%
1982	4025	3,4,5,6	5.5%	1.1%	0.2%	8.0%	0.1%	5.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.0%	1.3%	0.0%	1.9%	0.1%	0.2%	0.0%	6.7%	24.5%	45.0%
1983	2864	3,4,5,6	18.3%	0.1%	0.0%	12.9%	0.0%	2.0%	0.0%	0.5%	0.3%	0.3%	0.0%	0.0%	2.1%	0.0%	0.5%	0.0%	0.6%	0.0%	5.8%	20.8%	35.9%
1984	4114	3,4,5,6	4.7%	0.3%	0.4%	2.5%	0.1%	2.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	1.1%	0.0%	0.0%	0.0%	0.2%	0.0%	6.6%	25.1%	56.5%
1985	2663	3,4,5,6	7.7%	0.2%	0.0%	0.5%	0.0%	0.6%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%	17.6%	20.8%	52.0%
1986	738	3,4,5,6	4.3%	1.2%	0.0%	7.5%	0.0%	6.2%	0.7%	0.0%	0.0%	0.7%	2.6%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	8.7%	17.5%	49.8%
1987	806	3,4,5,6	17.7%	0.0%	1.0%	15.5%	0.0%	1.5%	1.2%	0.0%	0.0%	1.2%	1.0%	0.0%	3.1%	0.0%	0.0%	0.0%	0.6%	0.0%	5.2%	23.2%	28.7%
1988	2213	3,4,5,6	10.0%	0.3%	0.6%	8.0%	0.0%	3.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	2.4%	0.0%	0.2%	0.0%	0.0%	0.0%	6.6%	30.6%	36.7%
1989	2829	3,4,5,6	5.7%	0.0%	0.2%	2.2%	0.0%	1.6%	0.6%	0.0%	0.6%	0.0%	0.2%	0.0%	1.7%	0.0%	0.2%	0.0%	0.1%	0.0%	12.2%	21.8%	52.8%
1990	2862	3,4,5,6	10.0%	0.6%	0.3%	2.0%	0.2%	2.7%	0.7%	0.0%	0.0%	0.2%	0.6%	0.0%	1.5%	0.0%	0.1%	0.0%	0.0%	0.0%	15.7%	28.1%	37.5%
1991	3123	3,4,5,6	4.2%	2.1%	0.7%	2.1%	0.0%	0.4%	0.2%	0.0%	0.2%	0.0%	0.2%	0.0%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	5.7%	44.4%	38.8%
1992	2924	3,4,5,6	7.1%	5.7%	0.2%	2.0%	0.2%	3.1%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	2.7%	0.0%	0.4%	0.0%	0.5%	0.0%	5.2%	29.9%	42.5%
1993	5586	3,4,5,6	12.5%	0.0%	0.0%	1.5%	0.1%	1.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.8%	44.3%	37.3%
1994	5185	3,4,5,6	5.7%	0.8%	1.1%	0.9%	0.1%	0.8%	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%	4.8%	40.4%	44.5%
1995	4657	3,4,5,6	5.4%	0.2%	0.4%	1.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	45.6%	45.4%
1996	3821	3,4,5,6	2.4%	0.0%	0.0%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.8%	36.0%	60.2%
1997	2299	3,4,5,6	4.5%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	17.2%	76.4%
1998	1619	3,4,5,6	5.7%	0.2%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%	18.3%	74.3%
1999	1887	3,4,5,6	9.7%	0.0%	1.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.8%	15.7%	71.9%
2000	7358	3,4,5,6	13.9%	0.1%	1.0%	0.2%	0.7%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	2.1%	31.2%	49.4%
2001	36123	3,4,5,6	1.6%	0.0%	0.1%	0.1%	0.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%	3.7%	28.8%	66.7%
2002	20303	3,4,5,6	2.2%	0.2%	0.1%	1.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.3%	0.0%	0.0%	0.0%	15.3%	22.2%	57.0%
2003	7045	3,4,5,6	6.1%	0.0%	0.1%	0.5%	0.2%	2.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	1.5%	17.0%	71.5%
2004	7239	3,4,5,6	3.8%	0.5%	0.1%	0.7%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	6.2%	22.7%	58.4%
2005	3074	3,4,5,6	3.2%	0.0%	0.1%	0.3%	0.3%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.1%	0.0%	0.1%	0.0%	5.1%	17.0%	67.1%
2006	2081	3,4,5,6	4.2%	0.0%	0.0%	0.4%	0.7%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.4%	0.0%	7.7%	27.2%	53.6%
2007	1639	3,4,5,6	5.4%	0.2%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	20.2%	67.2%
2008	2292	3,4,5,6	1.9%	1.0%	0.1%	0.5%	0.0%	1.1%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	19.4%	13.9%	61.6%
2009	1925	3,4,5,6	8.5%	0.1%	0.0%	0.6%	1.6%	2.0%	6.6%	0.0%	1.6%	0.0%	0.0%	0.0%	0.8%	0.0%	0.5%	0.0%	1.7%	0.0%	17.6%	9.7%	48.8%
1979-2009	5263		6.7%	0.5%	0.3%	2.9%	0.1%	2.1%	0.4%	0.0%	0.1%	0.2%	0.2%	0.0%	1.0%	0.0%	0.2%	0.0%	0.2%	0.0%	6.3%	24.4%	54.4%
1979-1984	5123		7.7%	0.5%	0.2%	7.8%	0.1%	2.9%	0.0%	0.1%	0.1%	0.3%	0.2%	0.0%	1.1%	0.0%	0.7%	0.0%	0.2%	0.0%	4.2%	17.8%	56.1%
1985-1995	3053		8.2%	1.0%	0.4%	4.0%	0.1%	2.1%	0.4%	0.0%	0.1%	0.3%	0.5%	0.0%	1.3%	0.0%	0.2%	0.0%	0.1%	0.0%	7.5%	31.5%	42.4%
1996-1998	2580		4.2%	0.1%	0.1%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.7%	23.8%	70.3%
1999-2009	8268		5.5%	0.2%	0.2%	0.4%	0.3%	2.2%	0.7%	0.0%	0.2%	0.0%	0.0%	0.0%	0.7%	0.0%	0.1%	0.0%	0.2%	0.0%	7.6%	20.3%	61.2%

Appendix D Age 2 (fingerling stocks) or age 3 (yearling stocks) CWT survival indices (completed brood years only) for exploitation rate indicator stocks and age 2 or 3 Chinook model (EV) survival indices for corresponding model stocks. Some exploitation rate indicator stocks do not have corresponding model stocks. CWT indices are brood year survival divided by the long term average brood year survival. EV indices are brood year EV's divided by the long term average EV's using the same years in the average as the CWT index. The correlation coefficient (r) between CWT and EV survival indices is shown on each figure.

LIST OF APPENDIX D FIGURES.

Figure D 1. Alaska Spring CWT and model (Alaska South SE EV) age 3 survival indices. 190
Figure D 2. Big Qualicum River Fall CWT and model (Lower Strait of Georgia Hatchery and Natural EV) age 2 survival indices. 190
Figure D 3. Chilliwack River Fall CWT and model (Fraser Late EV) age 2 survival indices.....191
Figure D 4. Chilkat River CWT age 3 survival index.....191
Figure D 5. Cowichan River Fall CWT and model (Lower Strait of Georgia Natural EV) age 2 survival indices. 192
Figure D 6. Cowlitz Fall Tule CWT and model (Fall Cowlitz Hatchery EV) age 2 survival indices.....192
Figure D 7. Dome Creek Spring CWT and model (Fraser Early EV) age 3 survival indices.....193
Figure D 8. Elk River CWT and model (Oregon Coast EV) age 2 survival indices. 193
Figure D 9. Elwha River CWT age 2 survival index. 194
Figure D 10. George Adams Fall Fingerling CWT age 2 survival index. 194
Figure D 11. Hanford Wild Brights CWT age 2 survival index.....195
Figure D 12. Hoko Fall Fingerling CWT age 2 survival index. 195
Figure D 13. Kitsumkalum River Summer CWT and model (North/Central BC EV) age 3 survival indices. 196
Figure D 14. Lower River Hatchery Tule CWT and model (Lower Bonneville Hatchery EV) age 2 survival indices. 196
Figure D 15. Lewis River Wild CWT and model (Lewis River Wild EV) age 2 survival indices. ..197
Figure D 16. Lyons Ferry CWT and model (Lyons Ferry Hatchery EV) age 2 survival indices.....197
Figure D 17. Lyons Ferry Yearling CWT age 2 survival index. 198
Figure D 18. Nanaimo River Fall CWT and model (Lower Strait of Georgia Natural EV) age 2 survival indices. 198
Figure D 19. Nicola River Spring CWT and model (Fraser Early EV) age 2 survival indices.....199
Figure D 20. Nisqually Fall Fingerling CWT age 2 survival index.....199
Figure D 21. Nooksack Spring Yearling CWT and model (Nooksack Spring Yearling EV) age 2 survival indices. 200
Figure D 22. Nooksack Spring Fingerling CWT and model (Nooksack Spring Yearling EV) age 2 survival indices. 200
Figure D 23. Puntledge River Summer CWT and model (Lower Strait of Georgia Hatchery EV) age 2 survival indices. 201
Figure D 24. Queets Fall Fingerling CWT and model (Washington Coastal Wild EV) age 2 survival indices. 201
Figure D 25. Quinsam River Fall CWT and model (Upper Strait of Georgia EV) age 2 survival indices.....202
Figure D 26. Robertson Creek Fall CWT and model (WCVI Hatchery and Natural EV) age 2 survival indices. 202
Figure D 27. Samish Fall Fingerling CWT and model (Nooksack Fall Fingerling EV) age 2 survival indices. 203

Figure D 28. Lower Shuswap River Summer CWT and model (Fraser Early EV) age 2 survival indices.....203
Figure D 29. Skagit Spring Fingerling CWT age 2 survival index.....204
Figure D 30. Skagit Spring Yearling CWT age 2 survival index.....204
Figure D 31. Skykomish Fall Fingerling CWT and model (Snohomish Wild EV) age 2 survival indices.....205
Figure D 32. Sooes Fall Fingerling CWT and model (Washington Coastal Wild EV) age 2 survival indices.....205
Figure D 33. Spring Creek Tule CWT and model (Spring Creek Hatchery EV) age 2 survival indices.....206
Figure D 34. South Puget Sound Fall Fingerling CWT and model (Puget Sound Hatchery Fingerling EV) age 2 survival indices.....206
Figure D 35. South Puget Sound Fall Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.....207
Figure D 36. Squaxin Pens Fall Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.....207
Figure D 37. Salmon River CWT and model (Oregon Coast EV) age 2 survival indices.....208
Figure D 38. Skagit Summer Fingerling CWT and model (Skagit Wild EV) age 2 survival indices.....208
Figure D 39. Stillaguamish Fall Fingerling CWT and model (Stillaguamish Wild EV) age 2 survival indices.....209
Figure D 40. Columbia River Summers CWT and model (Columbia River Summer EV) age 2 survival indices.....209
Figure D 41. Taku River CWT age 3 survival index.....210
Figure D 42. Unuk River CWT age 3 survival index.....210
Figure D 43. Columbia River Upriver Bright CWT and model (Columbia River Upriver Brights EV) age 2 survival indices.....211
Figure D 44. University Of Washington Accelerated CWT age 2 survival index.....211
Figure D 45. White River Spring Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.....212
Figure D 46. Willamette Spring CWT and model (Willamette River Hatchery EV) age 3 survival indices.....212

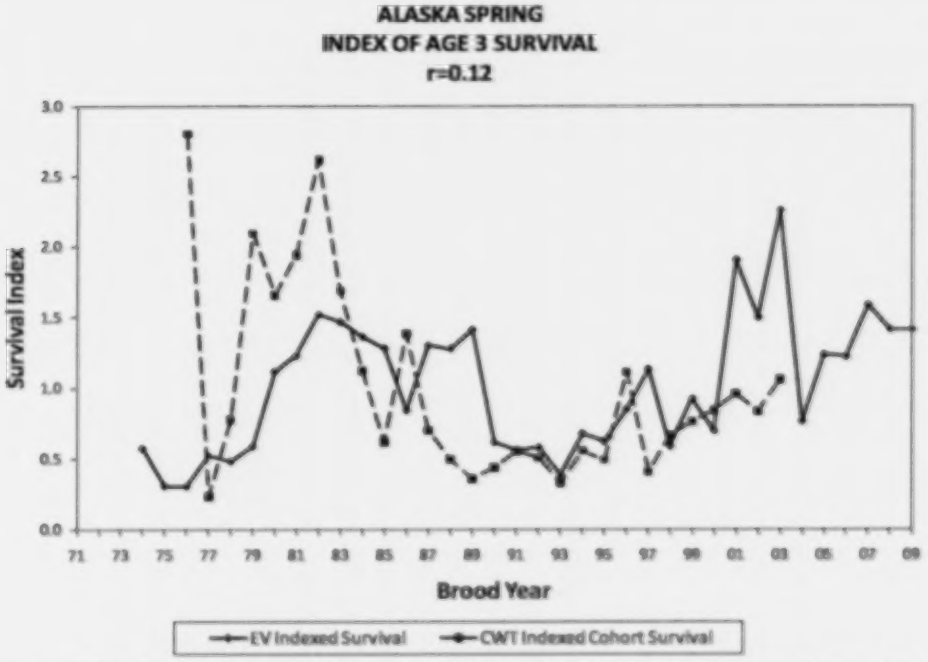


Figure D 1. Alaska Spring CWT and model (Alaska South SE EV) age 3 survival indices.

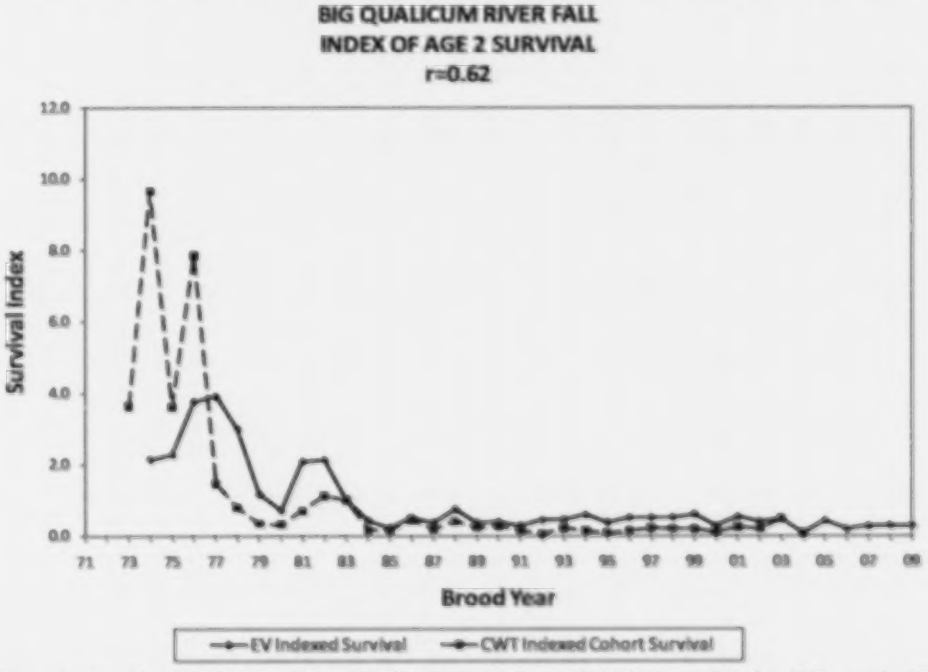


Figure D 2. Big Qualicum River Fall CWT and model (Lower Strait of Georgia Hatchery and Natural EV) age 2 survival indices.

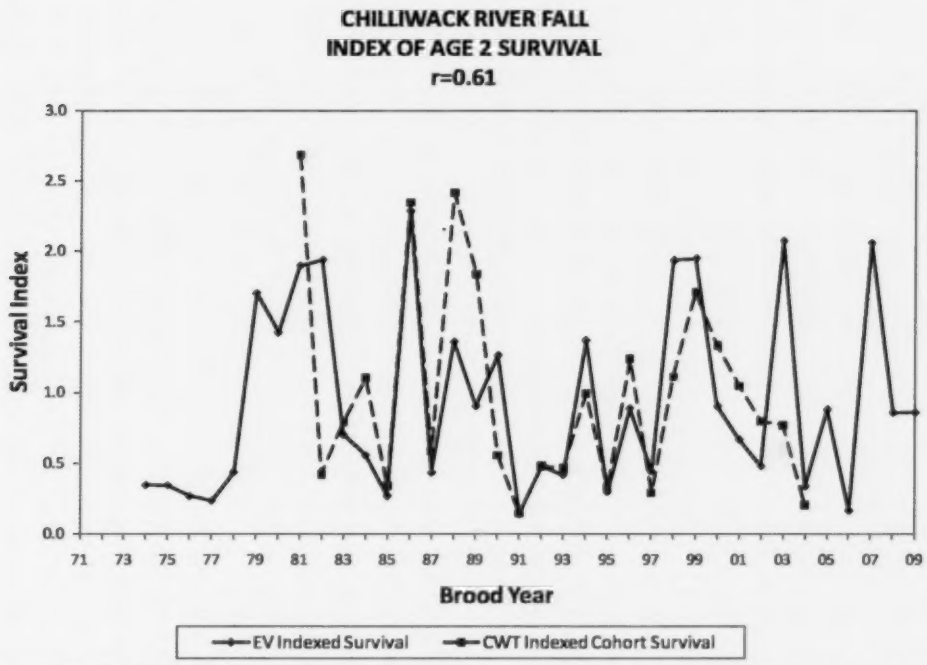
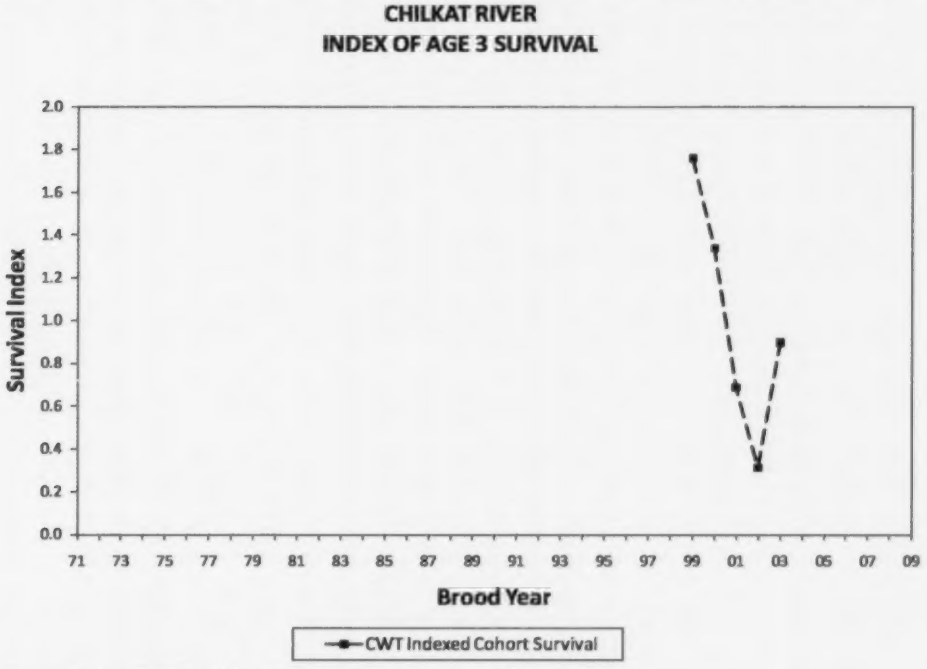


Figure D 3. Chilliwack River Fall CWT and model (Fraser Late EV) age 2 survival indices.



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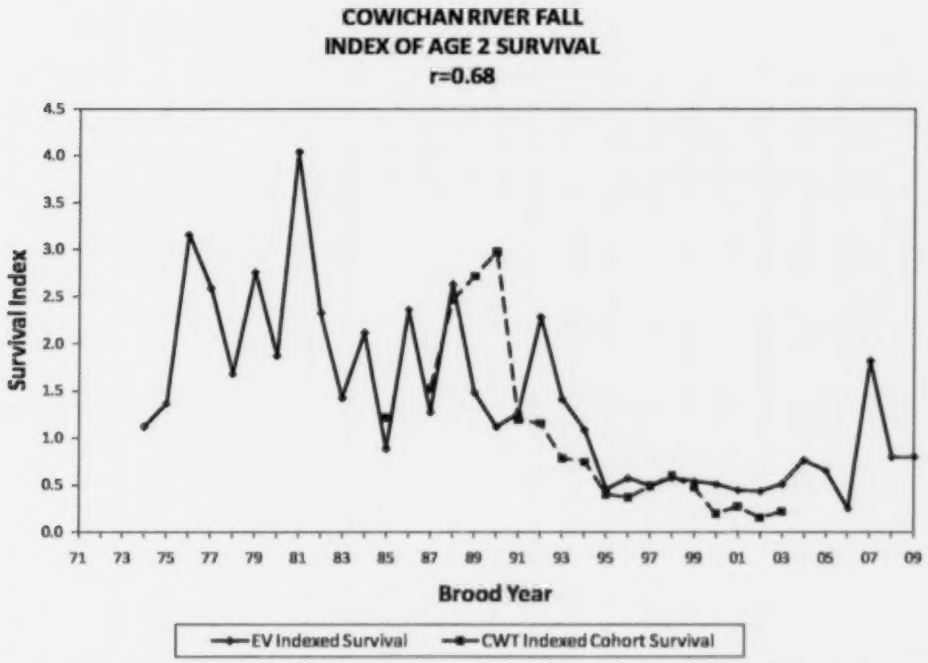

Figure D 5. Cowichan River Fall CWT and model (Lower Strait of Georgia Natural EV) age 2 survival indices.

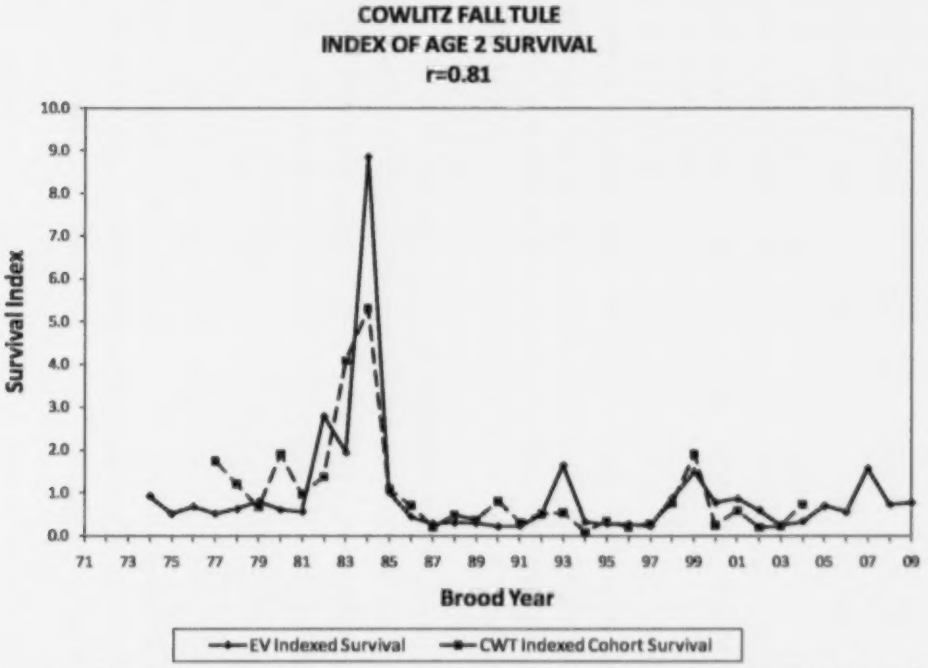

Figure D 6. Cowlitz Fall Tule CWT and model (Fall Cowlitz Hatchery EV) age 2 survival indices.

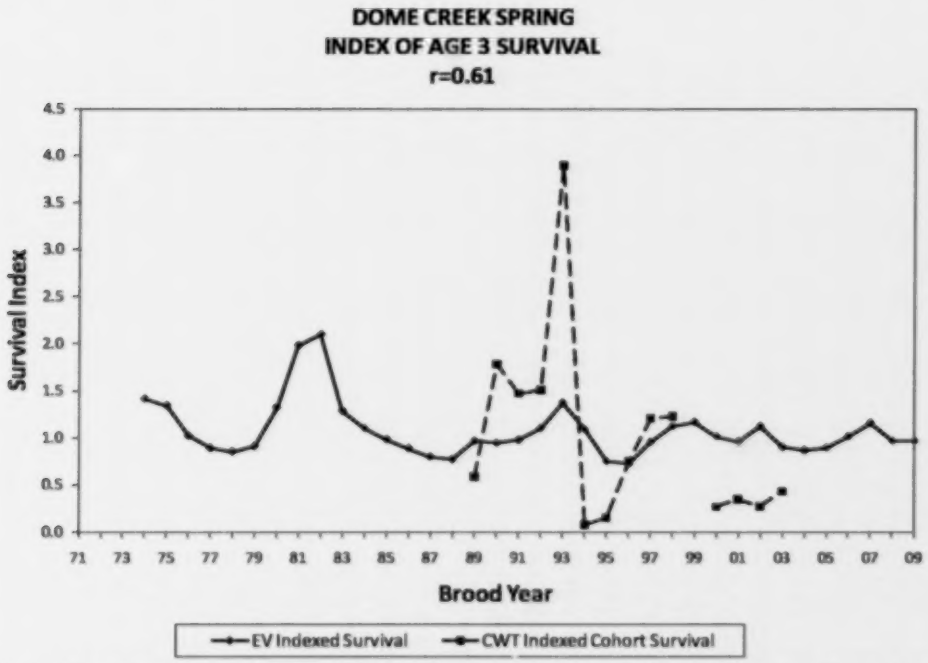

Figure D 7. Dome Creek Spring CWT and model (Fraser Early EV) age 3 survival indices.

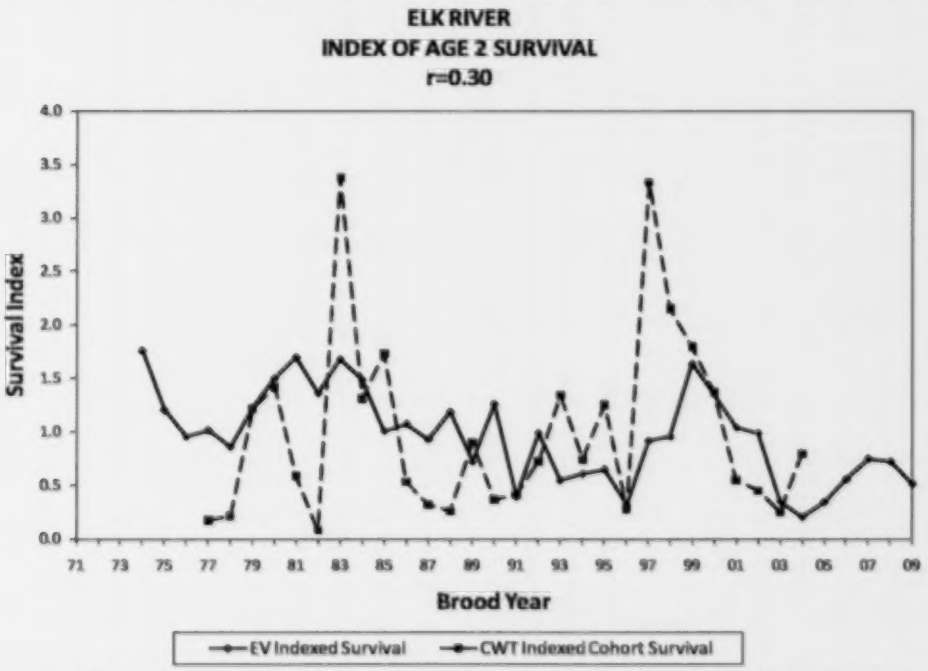

Figure D 8. Elk River CWT and model (Oregon Coast EV) age 2 survival indices.

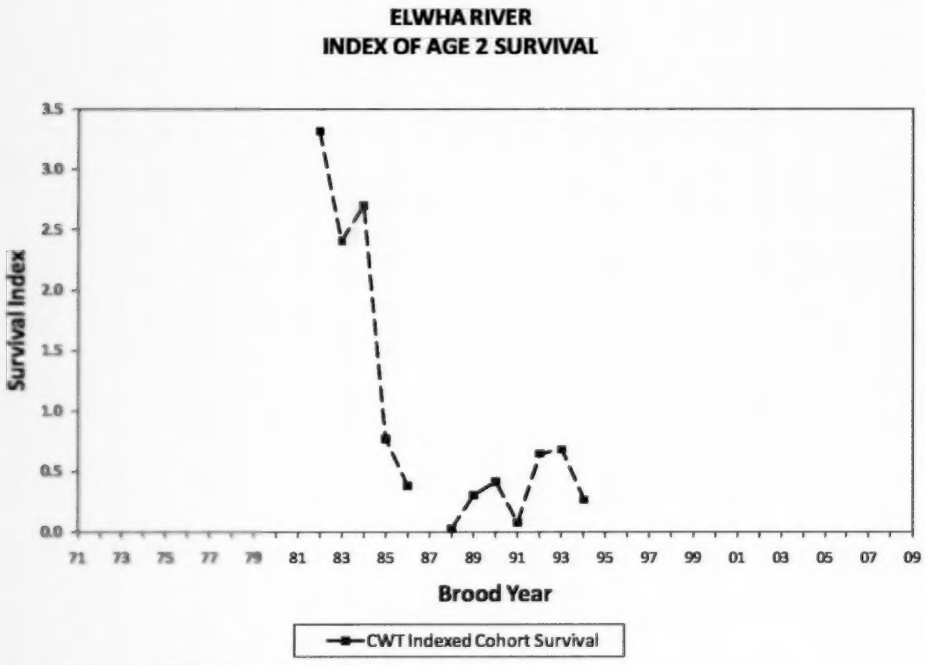

Figure D 9. Elwha River CWT age 2 survival index.

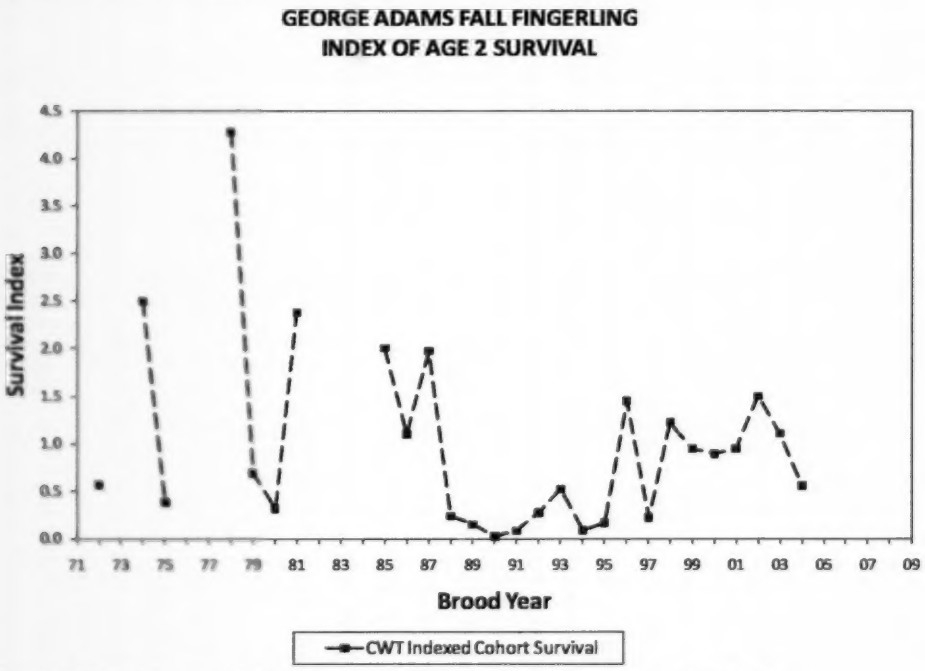

Figure D 10. George Adams Fall Fingerling CWT age 2 survival index.

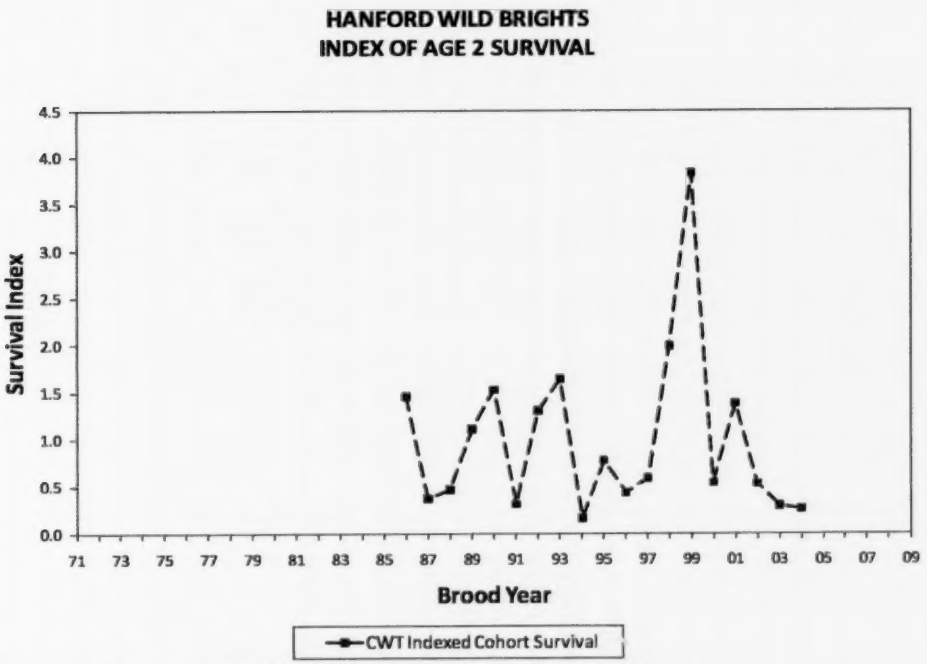

Figure D 11. Hanford Wild Brights CWT age 2 survival index.

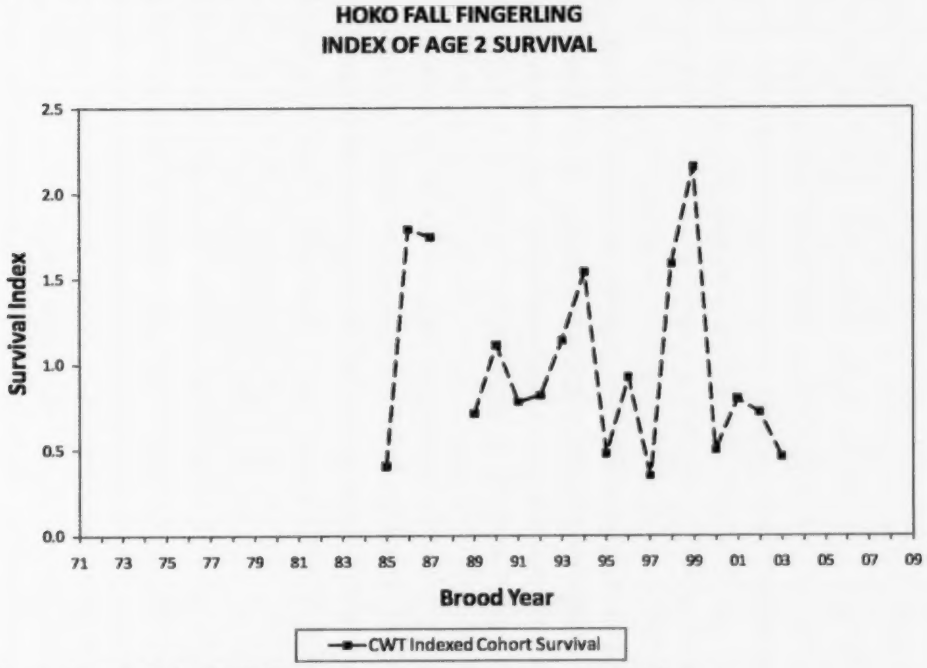

Figure D 12. Hoko Fall Fingerling CWT age 2 survival index.

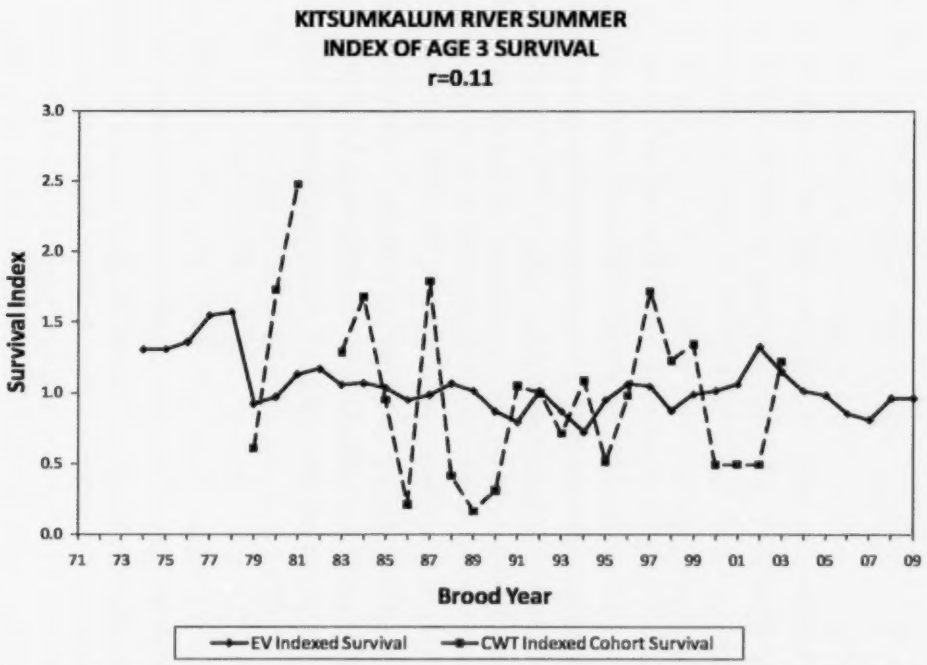

Figure D 13. Kitsumkalum River Summer CWT and model (North/Central BC EV) age 3 survival indices.

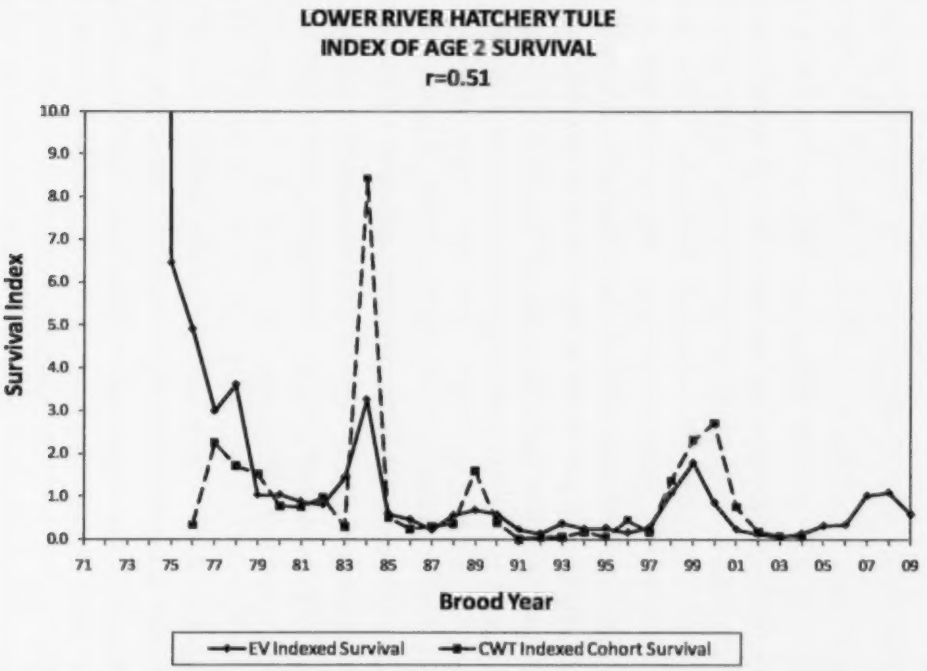

Figure D 14. Lower River Hatchery Tule CWT and model (Lower Bonneville Hatchery EV) age 2 survival indices.

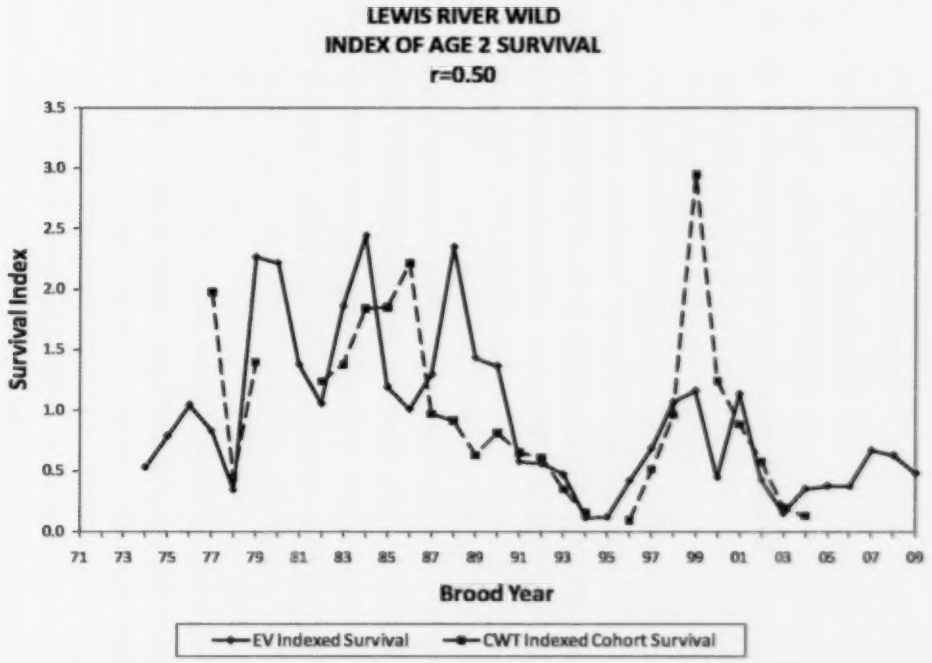

Figure D 15. Lewis River Wild CWT and model (Lewis River Wild EV) age 2 survival indices.

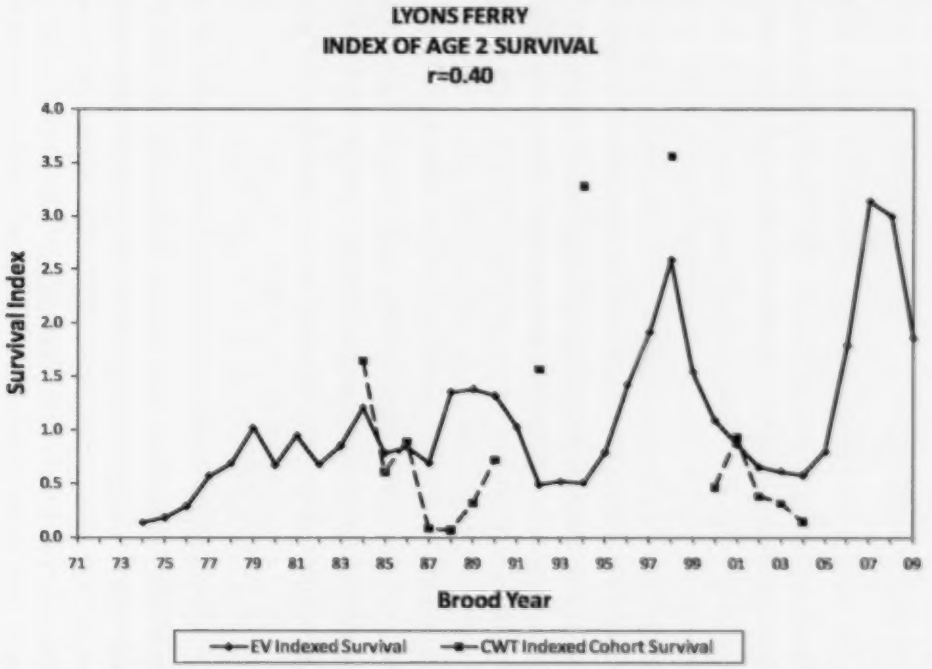

Figure D 16. Lyons Ferry CWT and model (Lyons Ferry Hatchery EV) age 2 survival indices.

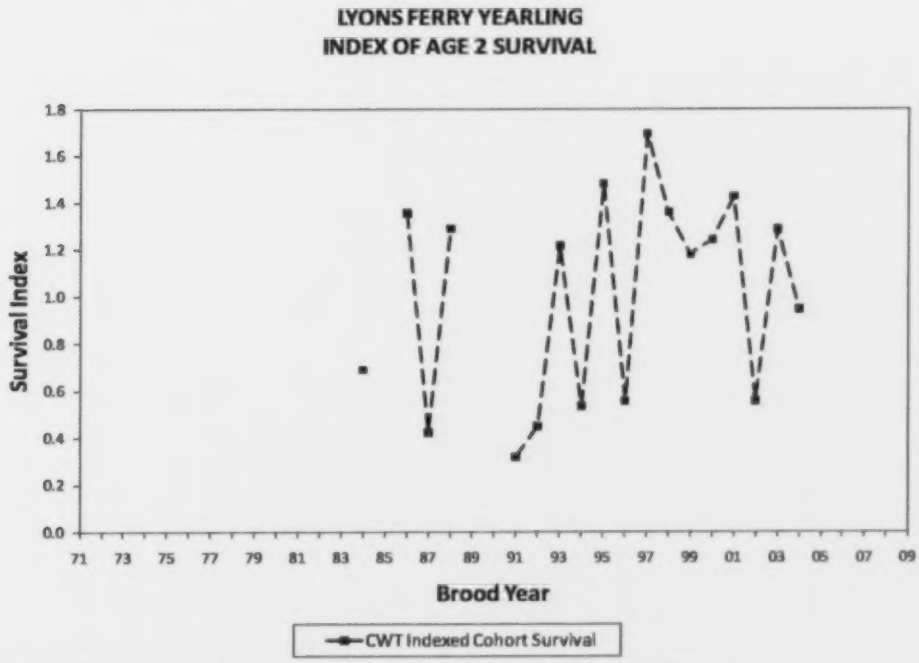

Figure D 17. Lyons Ferry Yearling CWT age 2 survival index.

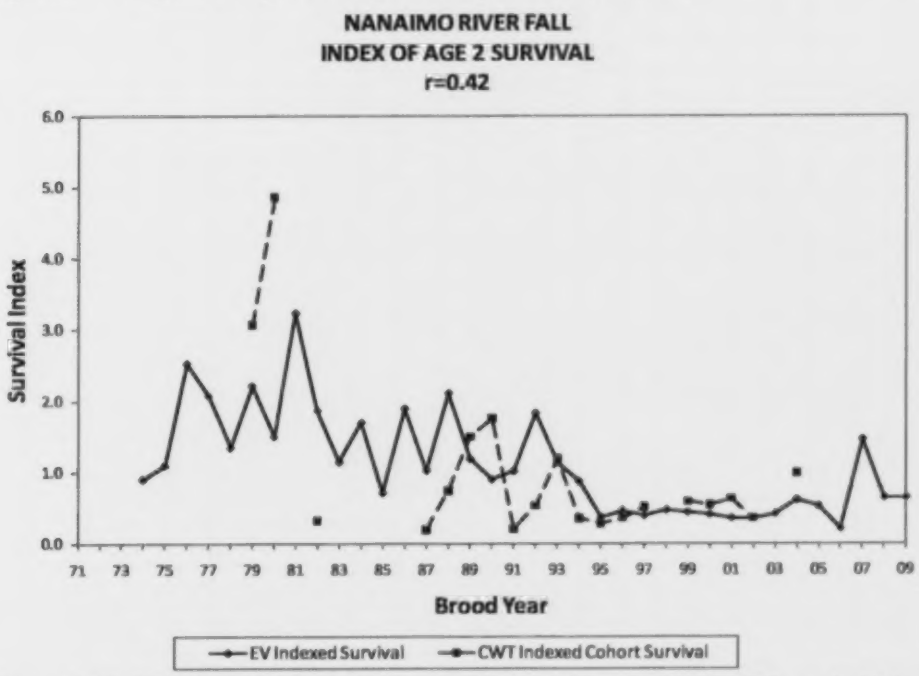

Figure D 18. Nanaimo River Fall CWT and model (Lower Strait of Georgia Natural EV) age 2 survival indices.

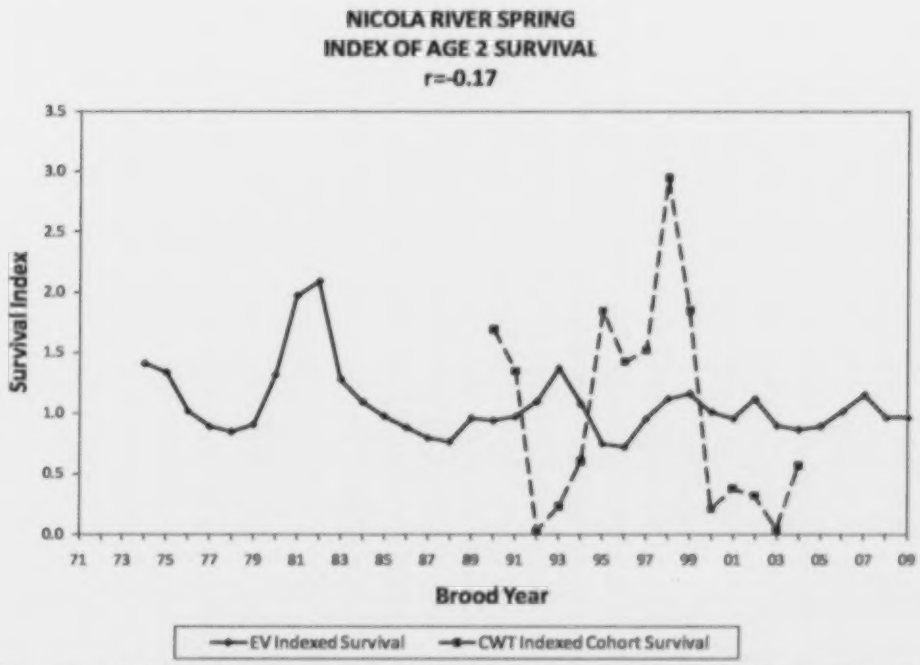

Figure D 19. Nicola River Spring CWT and model (Fraser Early EV) age 2 survival indices.

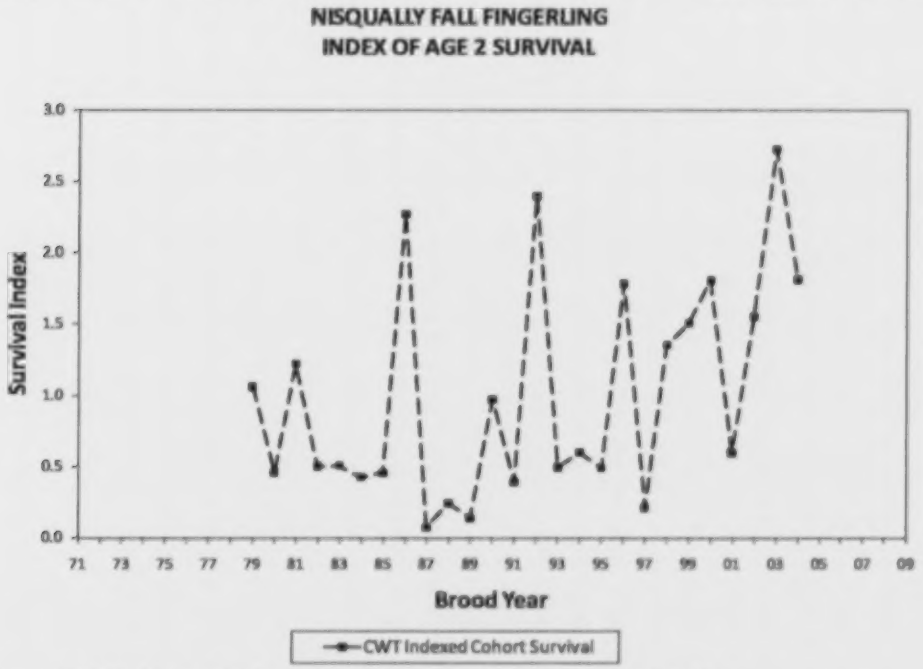

Figure D 20. Nisqually Fall Fingerling CWT age 2 survival index.

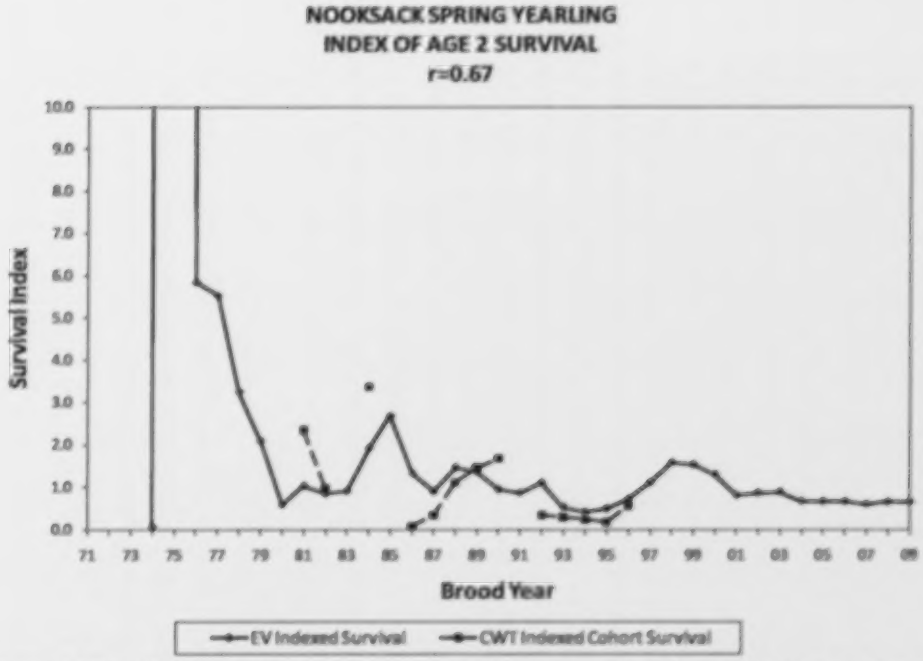

Figure D 21. Nooksack Spring Yearling CWT and model (Nooksack Spring Yearling EV) age 2 survival indices.

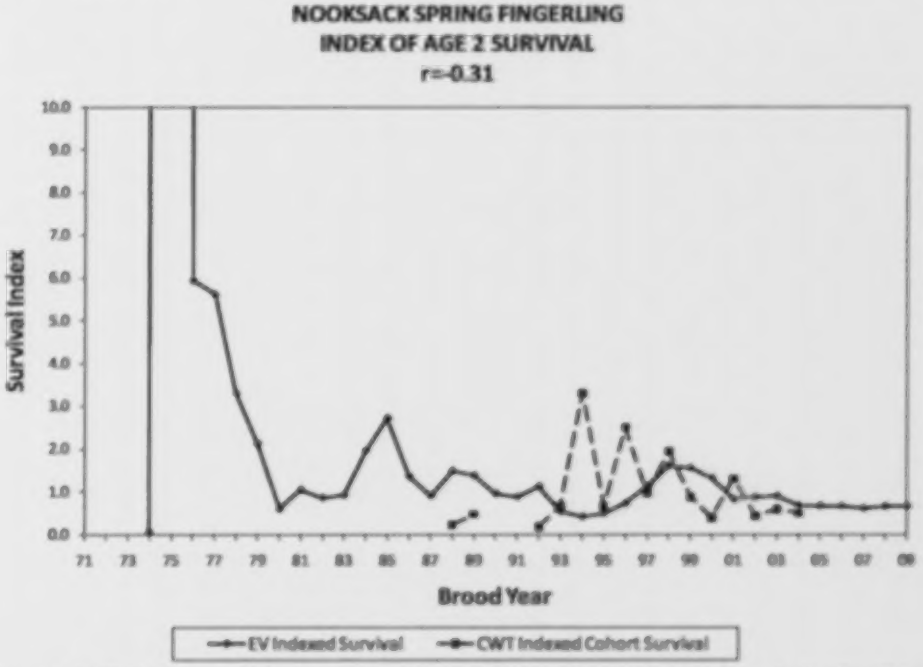

Figure D 22. Nooksack Spring Fingerling CWT and model (Nooksack Spring Yearling EV) age 2 survival indices.

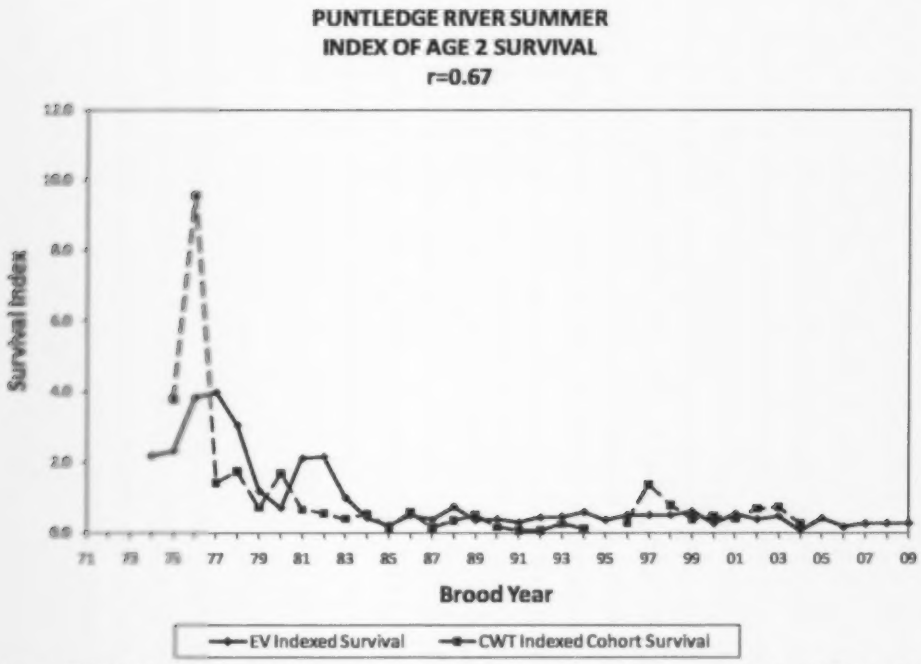

Figure D 23. Puntledge River Summer CWT and model (Lower Strait of Georgia Hatchery EV) age 2 survival indices.

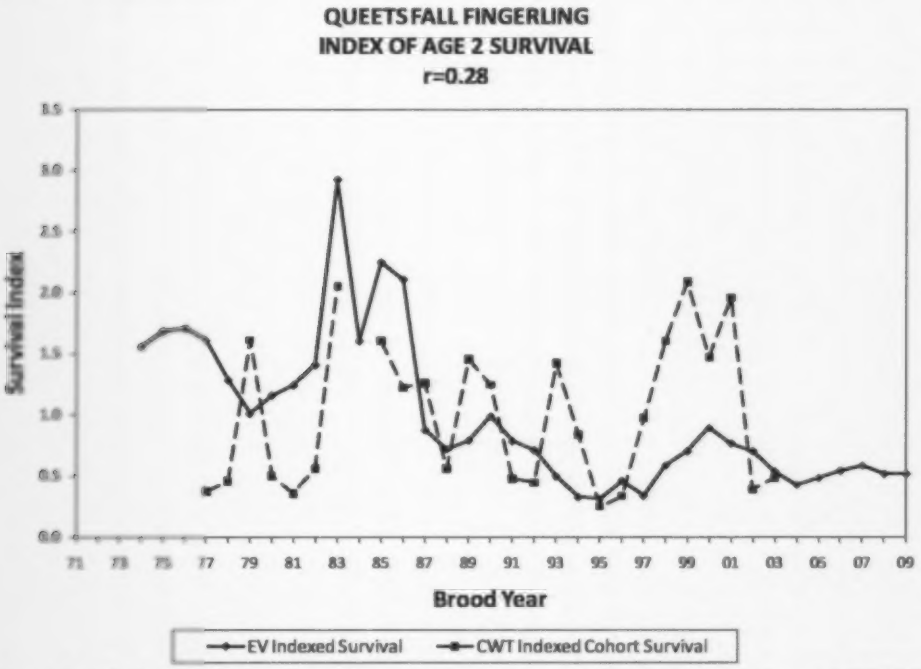

Figure D 24. Queets Fall Fingerling CWT and model (Washington Coastal Wild EV) age 2 survival indices.

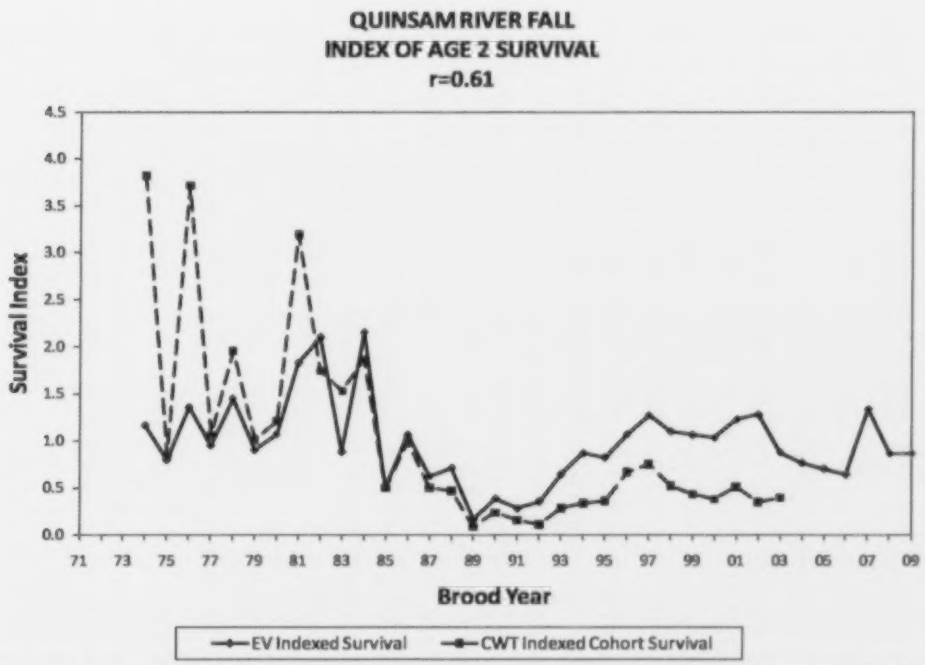

Figure D 25. Quinsam River Fall CWT and model (Upper Strait of Georgia EV) age 2 survival indices.

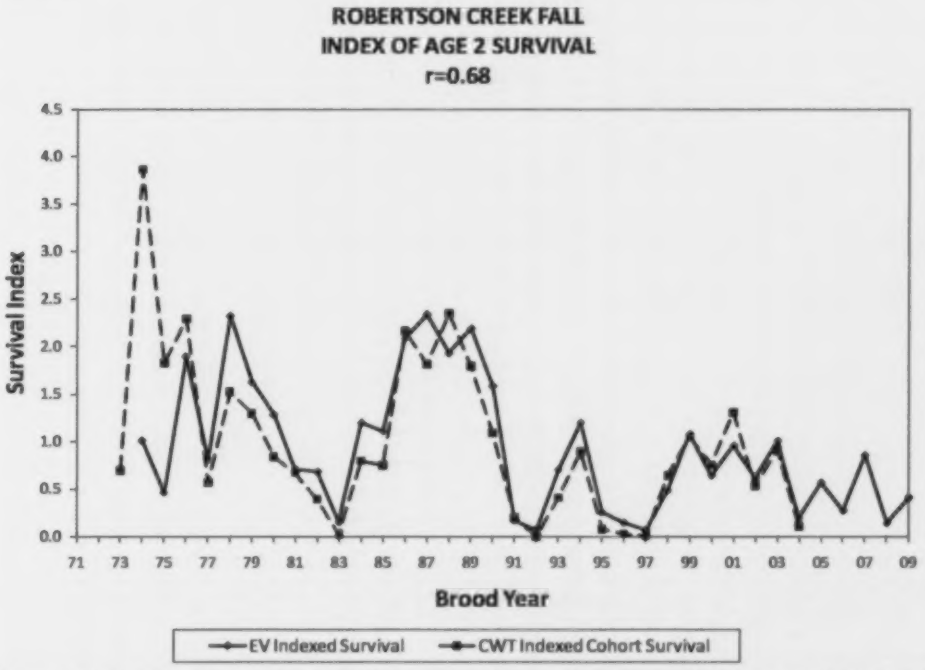

Figure D 26. Robertson Creek Fall CWT and model (WCVI Hatchery and Natural EV) age 2 survival indices.

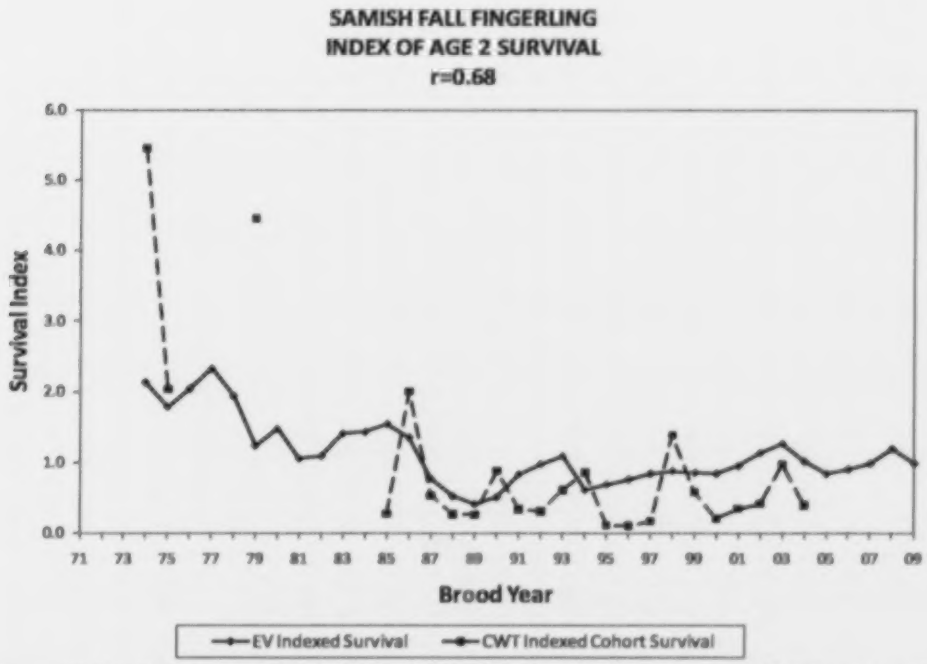

Figure D 27. Samish Fall Fingerling CWT and model (Nooksack Fall Fingerling EV) age 2 survival indices.

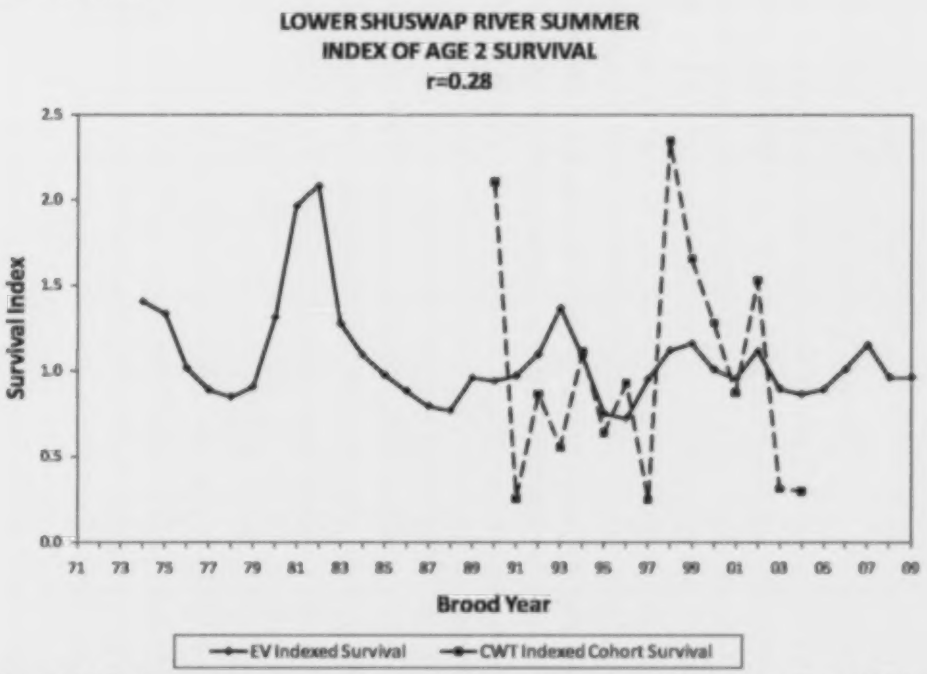

Figure D 28. Lower Shuswap River Summer CWT and model (Fraser Early EV) age 2 survival indices.

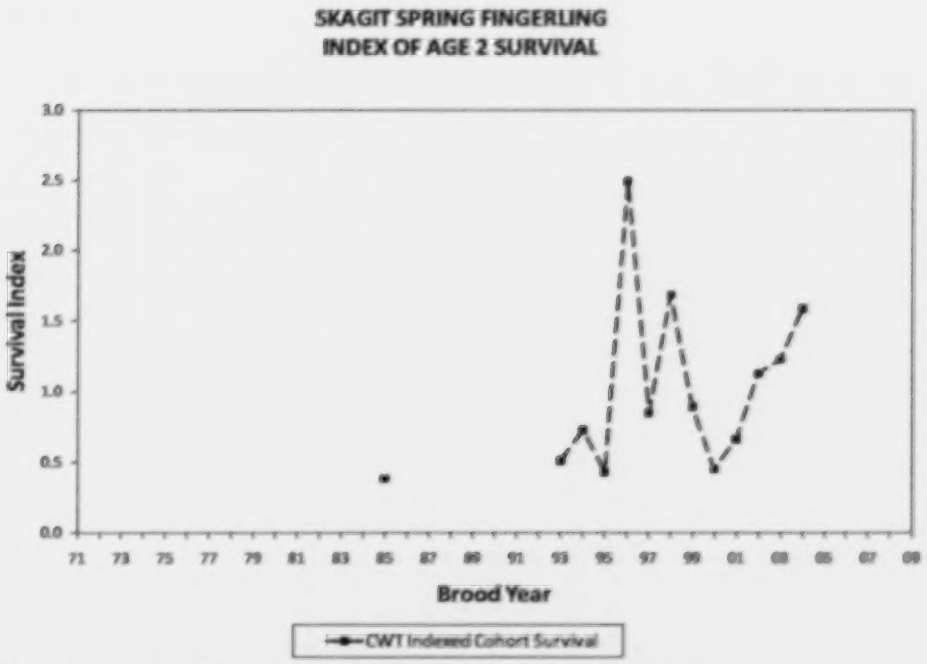

Figure D 29. Skagit Spring Fingerling CWT age 2 survival index.

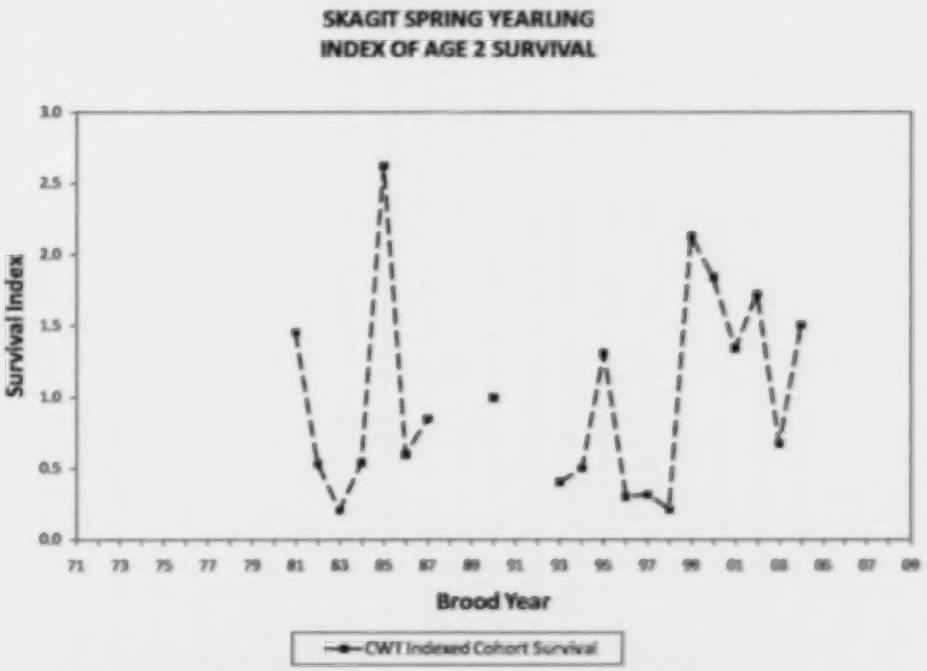

Figure D 30. Skagit Spring Yearling CWT age 2 survival index.

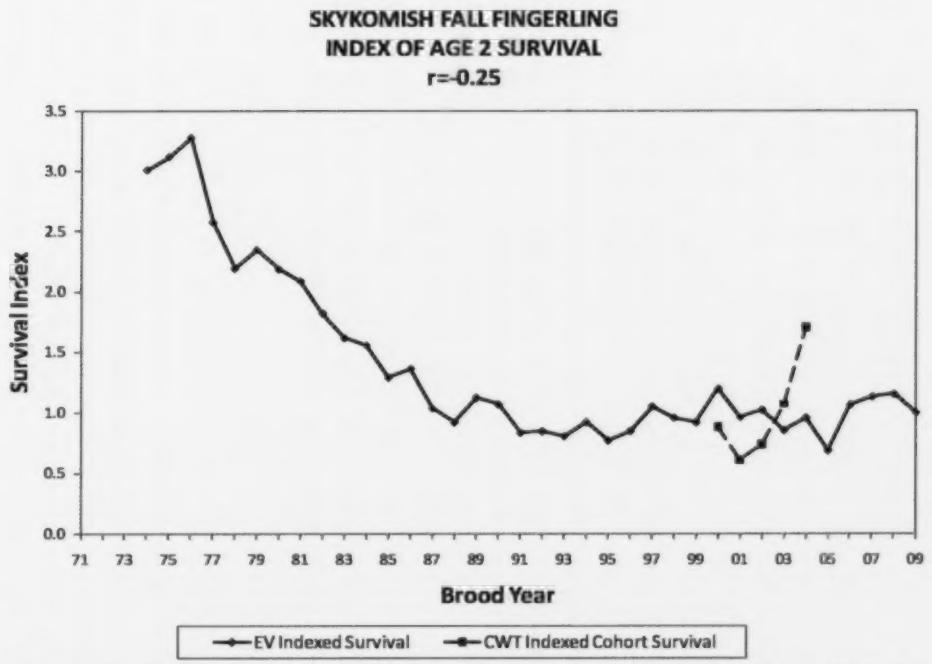

Figure D 31. Skykomish Fall Fingerling CWT and model (Snohomish Wild EV) age 2 survival indices.

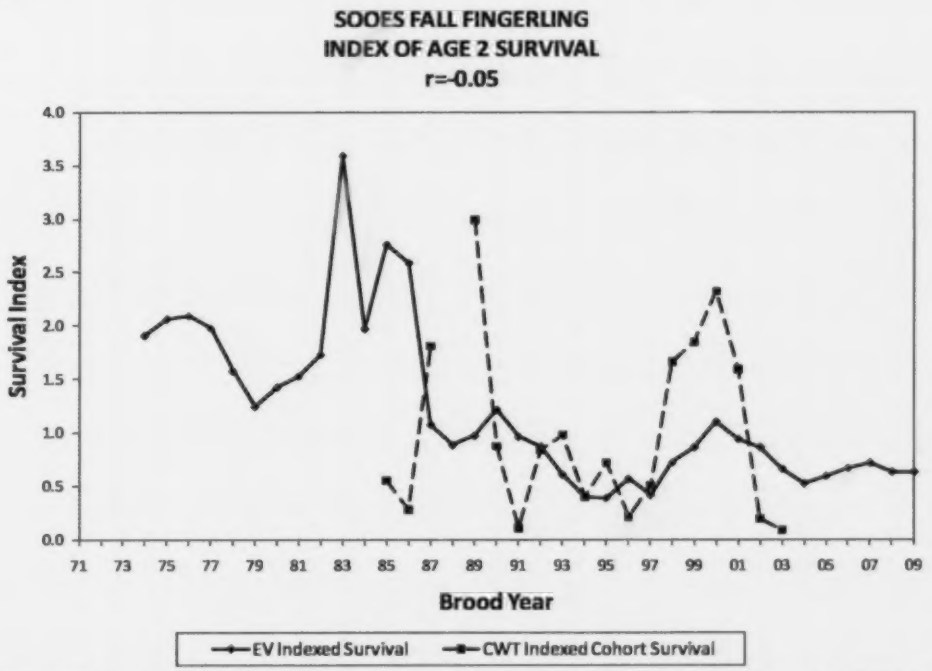

Figure D 32. Sooes Fall Fingerling CWT and model (Washington Coastal Wild EV) age 2 survival indices.

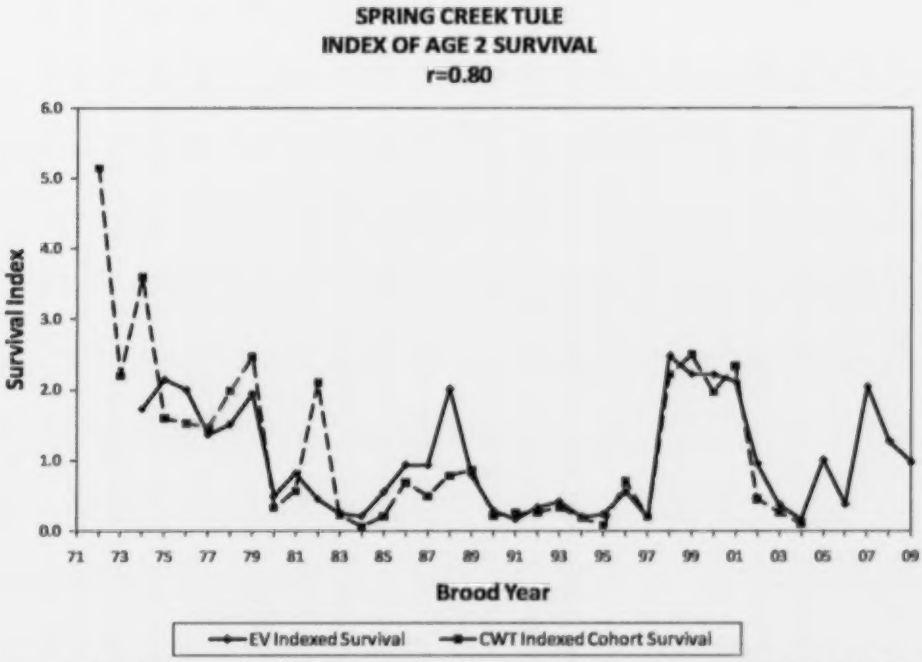

Figure D 33. Spring Creek Tule CWT and model (Spring Creek Hatchery EV) age 2 survival indices.

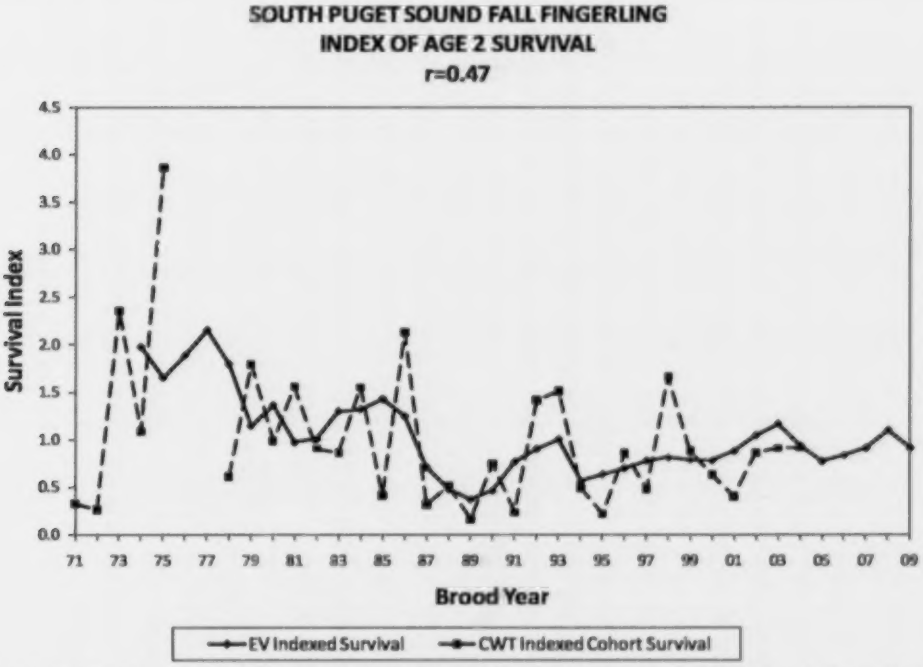

Figure D 34. South Puget Sound Fall Fingerling CWT and model (Puget Sound Hatchery Fingerling EV) age 2 survival indices.

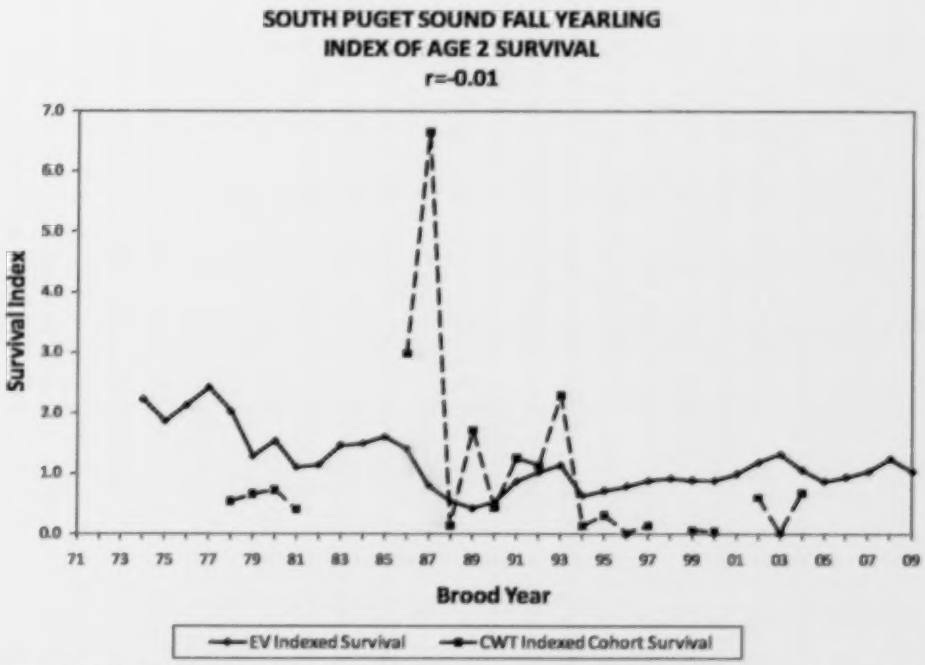

Figure D 35. South Puget Sound Fall Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.

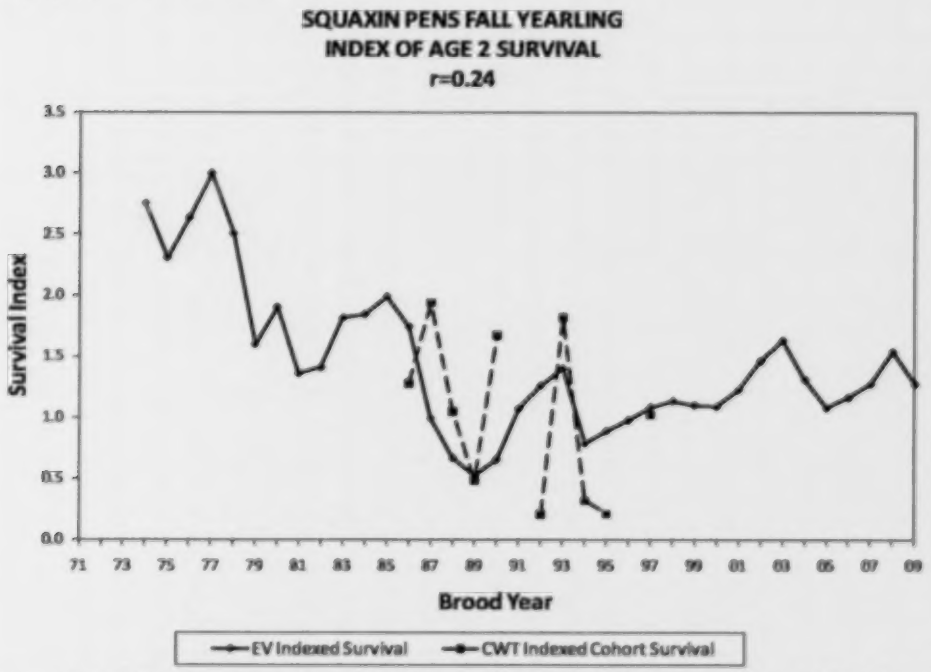

Figure D 36. Squaxin Pens Fall Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.

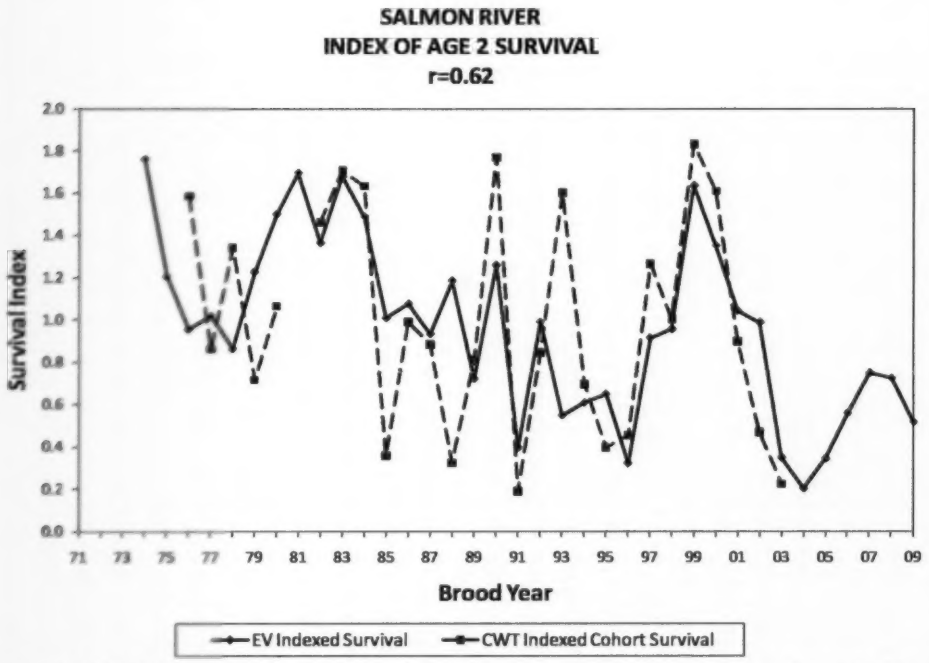

Figure D 37. Salmon River CWT and model (Oregon Coast EV) age 2 survival indices.

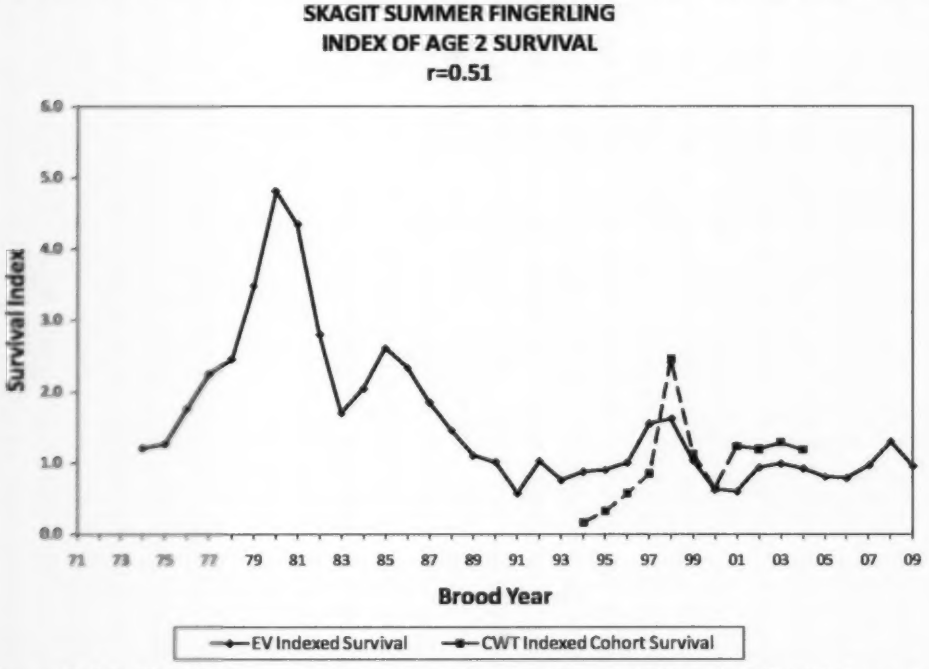

Figure D 38. Skagit Summer Fingerling CWT and model (Skagit Wild EV) age 2 survival indices.

Figure D 39. Stillaguamish Fall Fingerling CWT and model (Stillaguamish Wild EV) age 2 survival indices.

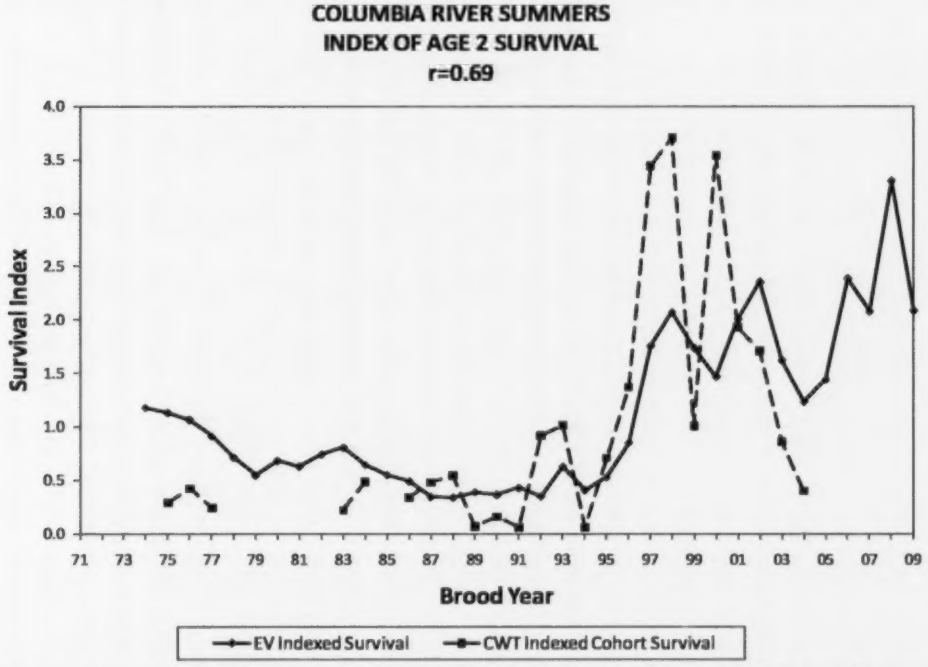

Figure D 40. Columbia River Summers CWT and model (Columbia River Summer EV) age 2 survival indices.

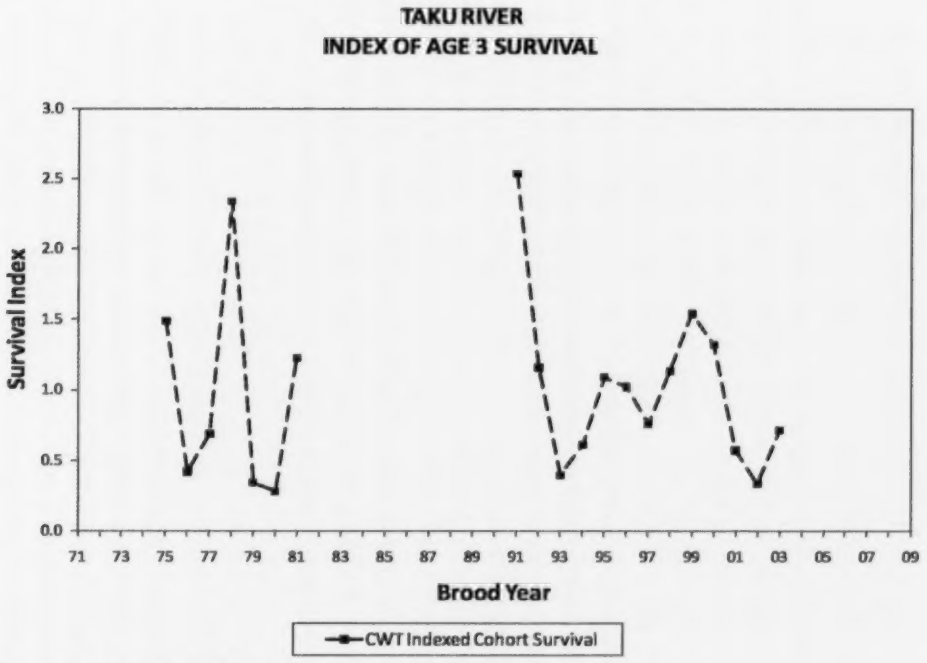

Figure D 41. Taku River CWT age 3 survival index.

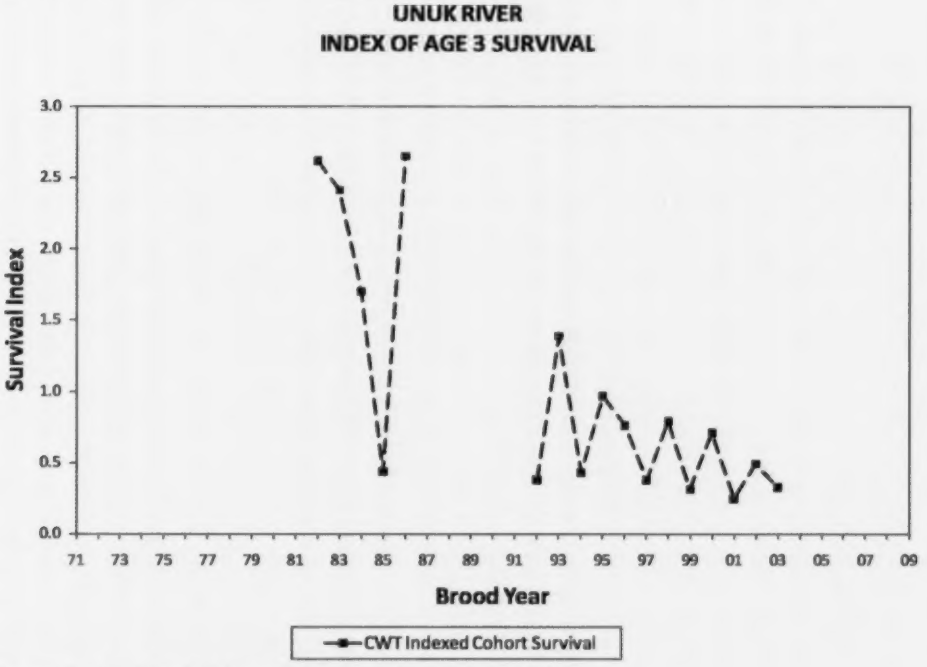

Figure D 42. Unuk River CWT age 3 survival index.

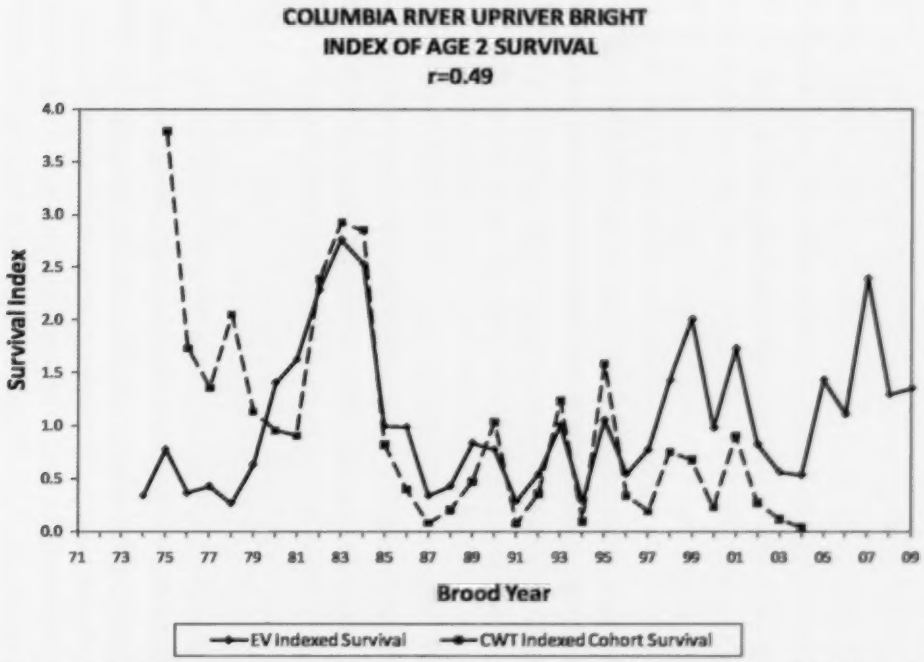

Figure D 43. Columbia River Upriver Bright CWT and model (Columbia River Upriver Brights EV) age 2 survival indices.

Figure D 44. University Of Washington Accelerated CWT age 2 survival index.

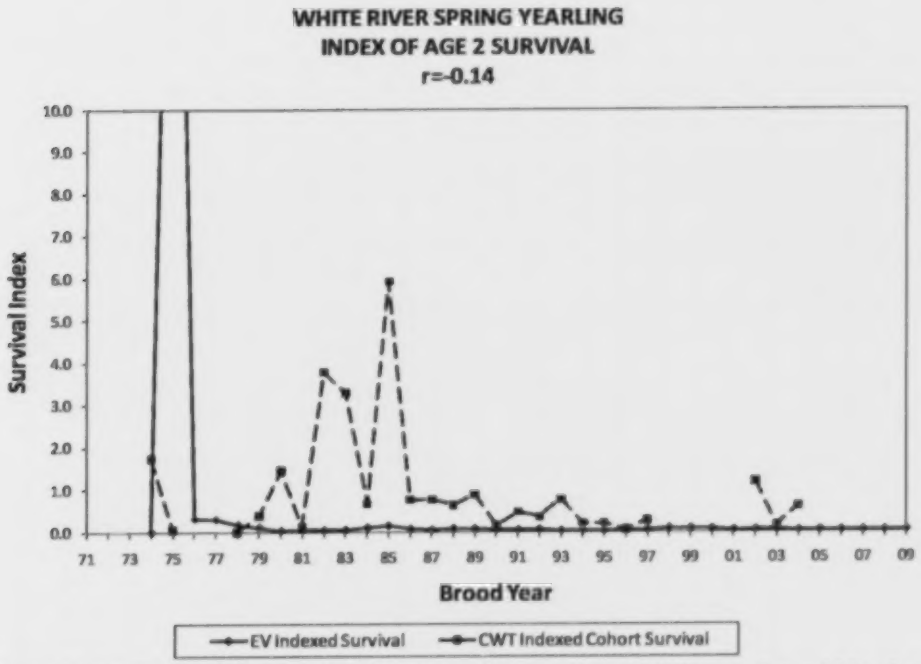

Figure D 45. White River Spring Yearling CWT and model (Puget Sound Hatchery Yearling EV) age 2 survival indices.

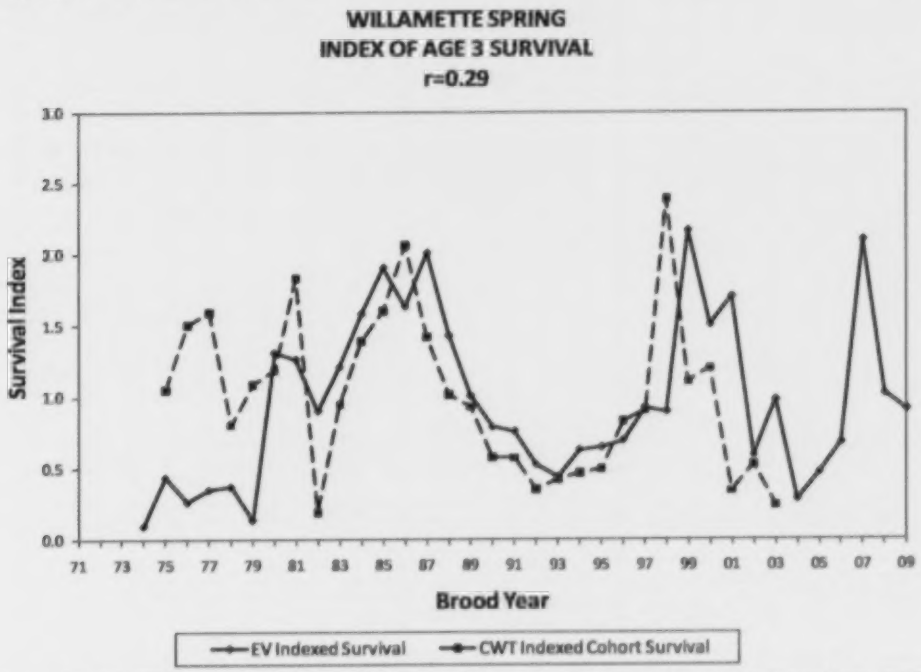

Figure D 46. Willamette Spring CWT and model (Willamette River Hatchery EV) age 3 survival indices.

Appendix E Total mortality and landed catch exploitation rates for exploitation rate indicator stocks with analogous model stocks in parentheses (complete broods only).

LIST OF APPENDIX E FIGURES.

Figure E 1. Alaska Spring (Alaska South SE) ocean exploitation rates by brood year. 215
Figure E 2. Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total exploitation rates by brood year....215
Figure E 3. Chilliwack River Fall (Fraser Late) total exploitation rates by brood year. 216
Figure E 4. Chilkat River ocean exploitation rates by brood year....216
Figure E 5. Cowichan River Fall (Lower Strait of Georgia Natural) total exploitation rates by brood year....217
Figure E 6. Cowlitz Fall Tule (Fall Cowlitz Hatchery) ocean exploitation rates by brood year....217
Figure E 7. Dome Creek Spring (Fraser Early) total exploitation rates by brood year. 218
Figure E 8. Elk River (Oregon Coast) ocean exploitation rates by brood year. 218
Figure E 9. Elwha River ocean exploitation rates by brood year. 219
Figure E 10. George Adams Fall Fingerling ocean exploitation rates by brood year....219
Figure E 11. Hanford Wild Brights total exploitation rates by brood year. 220
Figure E 12. Hoko Fall Fingerling ocean exploitation rates by brood year. 220
Figure E 13. Kitsumkalum River Summer (North/Central BC) total exploitation rates by brood year. 221
Figure E 14. Lower River Hatchery Tule (Lower Bonneville Hatchery) total exploitation rates by brood year. 221
Figure E 15. Lewis River Wild (Lewis River Wild) total exploitation rates by brood year. 222
Figure E 16. Lyons Ferry (Lyons Ferry Hatchery) total exploitation rates by brood year. 222
Figure E 17. Lyons Ferry Yearling total exploitation rates by brood year. 223
Figure E 18. Nanaimo River Fall (Lower Strait of Georgia Natural) total exploitation rates by brood year. 223
Figure E 19. Nicola River Spring (Fraser Early) total exploitation rates by brood year. 224
Figure E 20. Nisqually Fall Fingerling ocean exploitation rates by brood year....224
Figure E 21. Nooksack Spring Yearling (Nooksack Spring Yearling) ocean exploitation rates by brood year. 225
Figure E 22. Nooksack Spring Fingerling (Nooksack Spring Yearling) ocean exploitation rates by brood year. 225
Figure E 23. Puntledge River Summer (Lower Strait of Georgia Hatchery) total exploitation rates by brood year. 226
Figure E 24. Queets Fall Fingerling (Washington Coastal Wild) total exploitation rates by brood year. 226
Figure E 25. Quinsam River Fall (Upper Strait of Georgia) total exploitation rates by brood year. 227
Figure E 26. Robertson Creek Fall (WCVI Hatchery and Natural) ocean exploitation rates by brood year. 227
Figure E 27. Samish Fall Fingerling (Nooksack Fall Fingerling) ocean exploitation rates by brood year. 228
Figure E 28. Lower Shuswap River Summer (Fraser Early) total exploitation rates by brood year. 228
Figure E 29. Skagit Spring Fingerling ocean exploitation rates by brood year....229
Figure E 30. Skagit Spring Yearling ocean exploitation rates by brood year. 229
Figure E 31. Skykomish Fall Fingerling (Snohomish Wild) ocean exploitation rates by brood year. 230
Figure E 32. Sooes Fall Fingerling (Washington Coastal Wild) ocean exploitation rates by brood year. 230

Figure E 33. Spring Creek Tule (Spring Creek Hatchery) total exploitation rates by brood year. 231
Figure E 34. South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) ocean exploitation rates by brood year.....231
Figure E 35. South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.....232
Figure E 36. Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.....232
Figure E 37. Salmon River (Oregon Coast) ocean exploitation rates by brood year.....233
Figure E 38. Skagit Summer Fingerling (Skagit Wild) ocean exploitation rates by brood year.....233
Figure E 39. Stillaguamish Fall Fingerling (Stillaguamish Wild) ocean exploitation rates by brood year.....234
Figure E 40. Columbia River Summers (Columbia River Summer) total exploitation rates by brood year.....234
Figure E 41. Taku River ocean exploitation rates by brood year. 235
Figure E 42. Unuk River ocean exploitation rates by brood year.....235
Figure E 43. Columbia River Upriver Bright (Columbia River Upriver Brights) total exploitation rates by brood year.....236
Figure E 44. University Of Washington Accelerated ocean exploitation rates by brood year. 236
Figure E 45. White River Spring Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.....237
Figure E 46. Willamette Spring (Willamette River Hatchery) ocean exploitation rates by brood year.....237

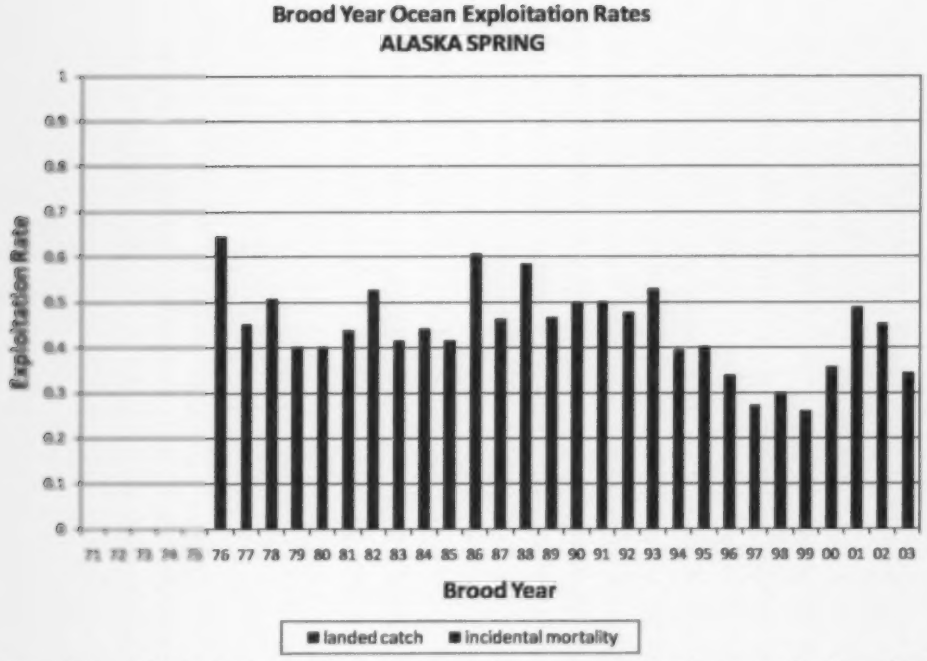

Figure E 1. Alaska Spring (Alaska South SE) ocean exploitation rates by brood year.

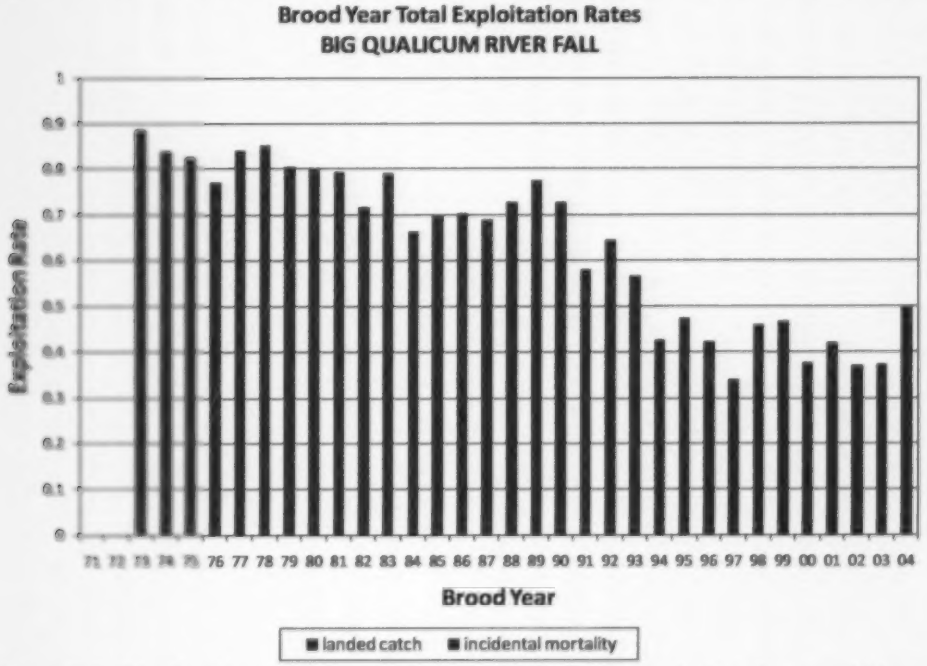

Figure E 2. Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total exploitation rates by brood year.

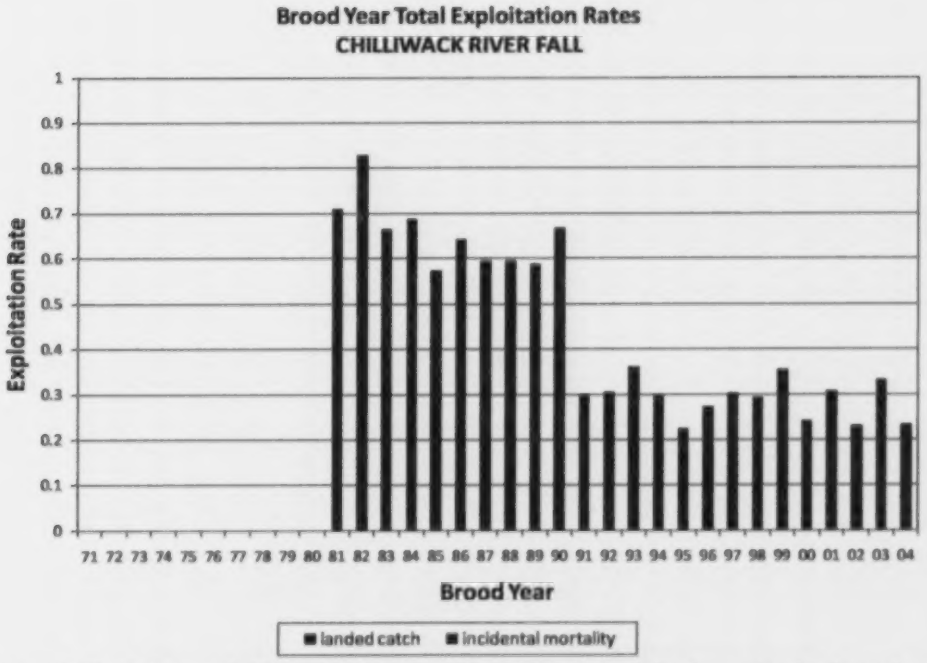

Figure E 3. Chilliwack River Fall (Fraser Late) total exploitation rates by brood year.

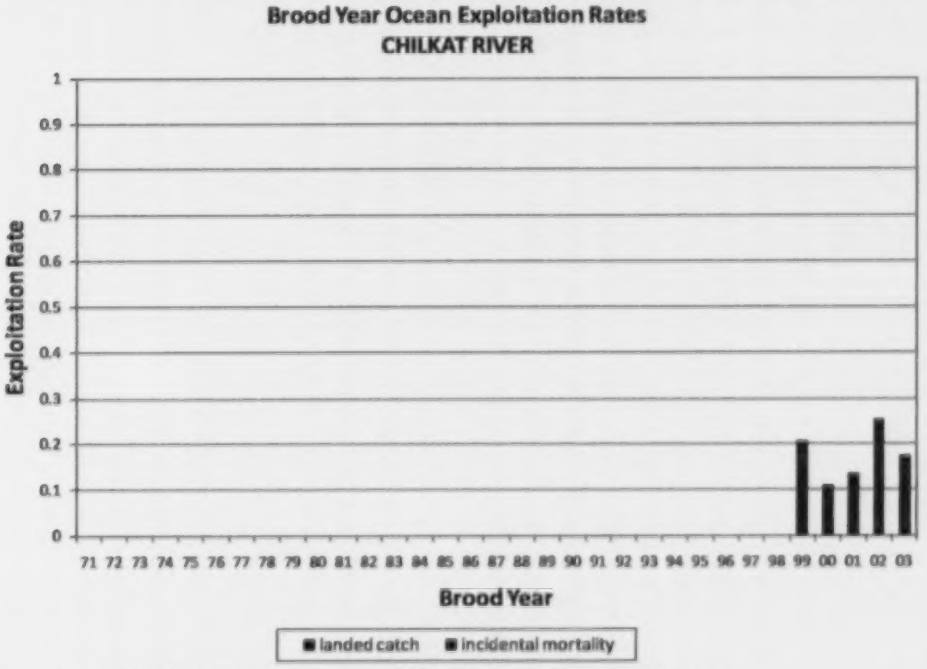

Figure E 4. Chilkat River ocean exploitation rates by brood year.

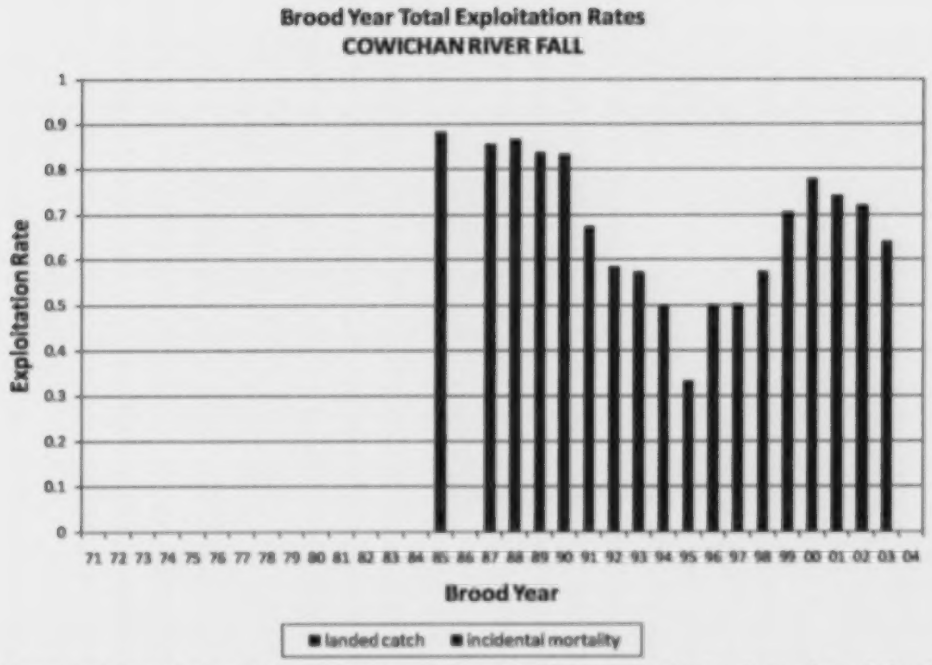

Figure E 5. Cowichan River Fall (Lower Strait of Georgia Natural) total exploitation rates by brood year.

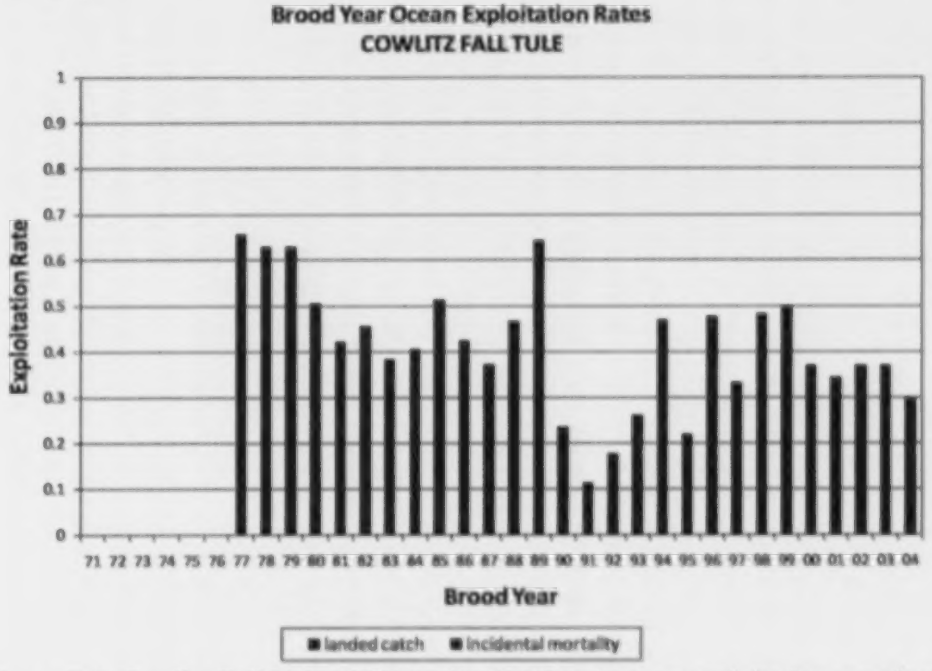

Figure E 6. Cowlitz Fall Tule (Fall Cowlitz Hatchery) ocean exploitation rates by brood year.

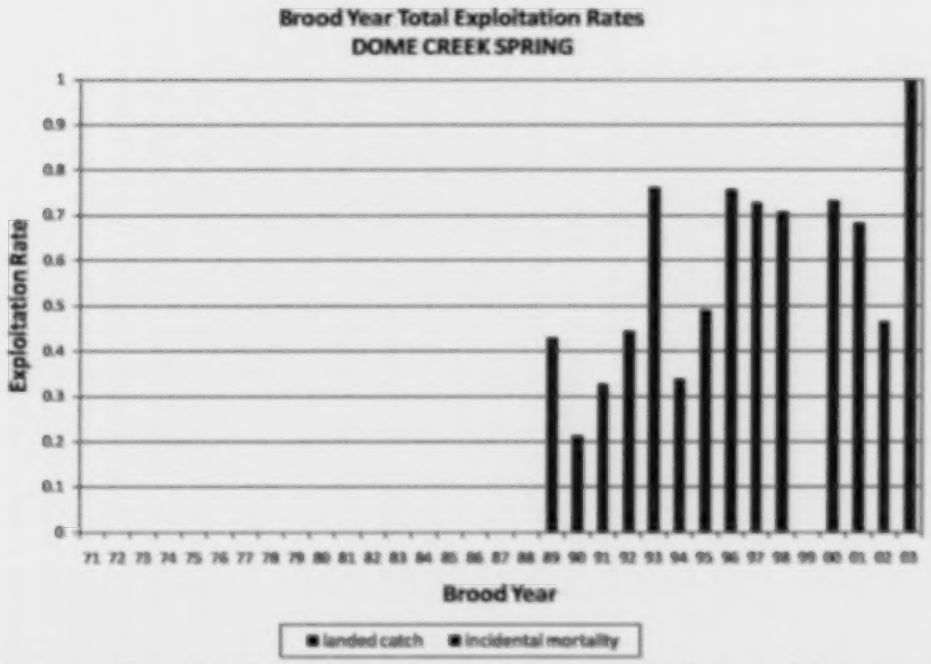

Figure E 7. Dome Creek Spring (Fraser Early) total exploitation rates by brood year.

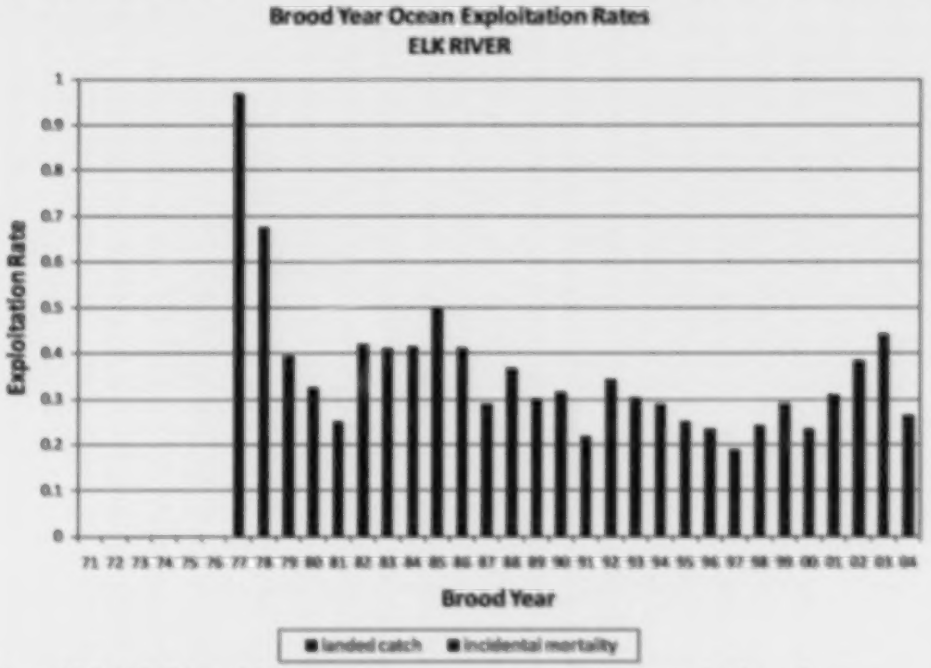

Figure E 8. Elk River (Oregon Coast) ocean exploitation rates by brood year.

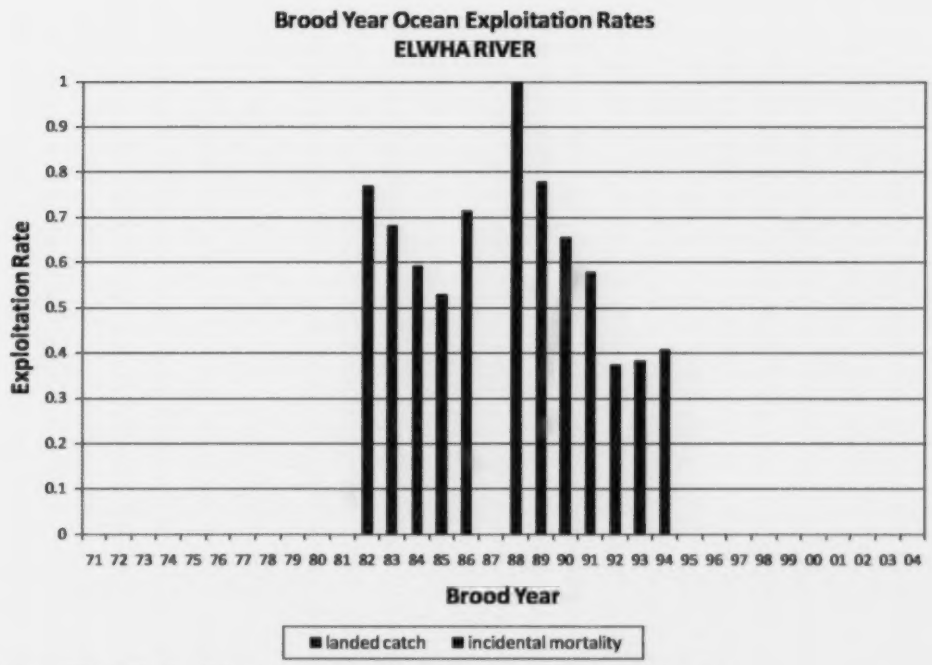

Figure E 9. Elwha River ocean exploitation rates by brood year.

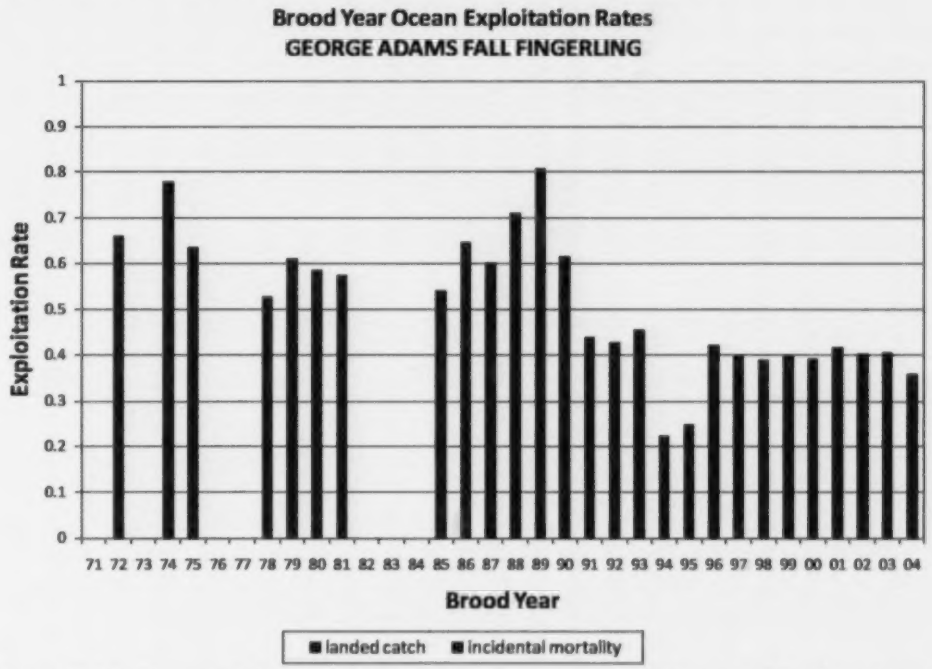

Figure E 10. George Adams Fall Fingerling ocean exploitation rates by brood year.

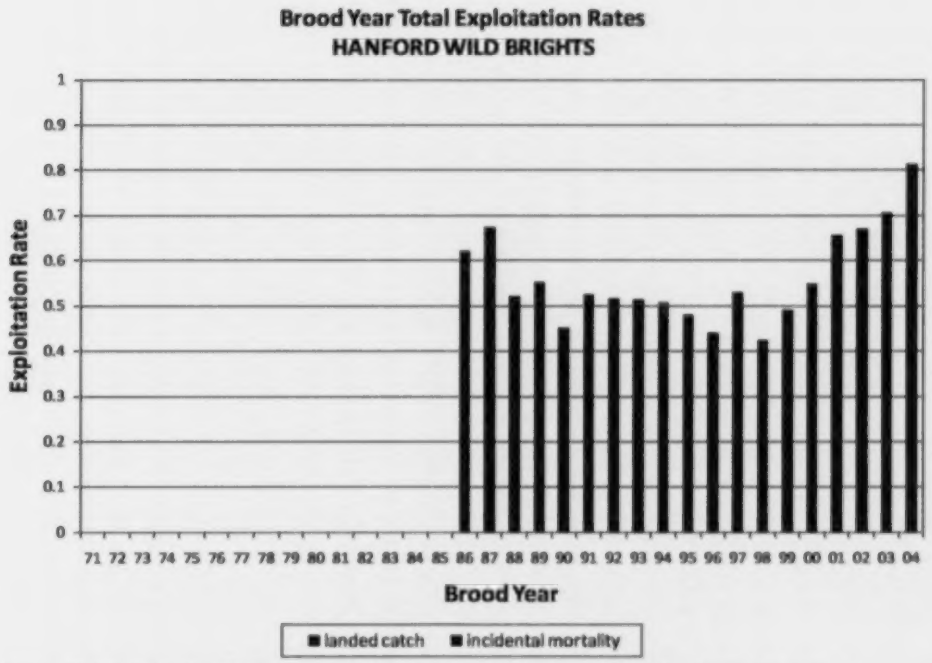

Figure E 11. Hanford Wild Brights total exploitation rates by brood year.

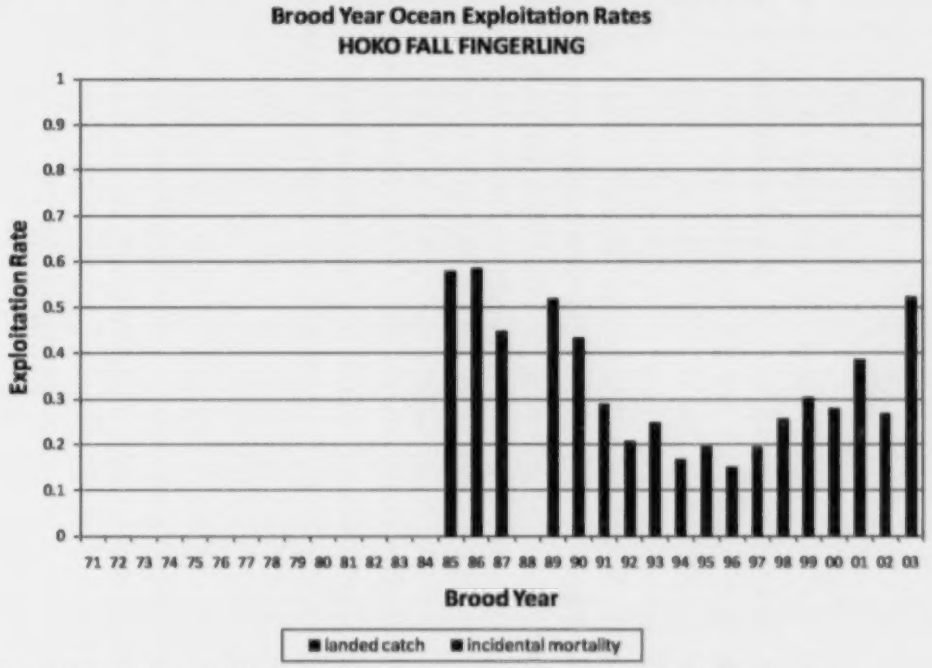

Figure E 12. Hoko Fall Fingerling ocean exploitation rates by brood year.

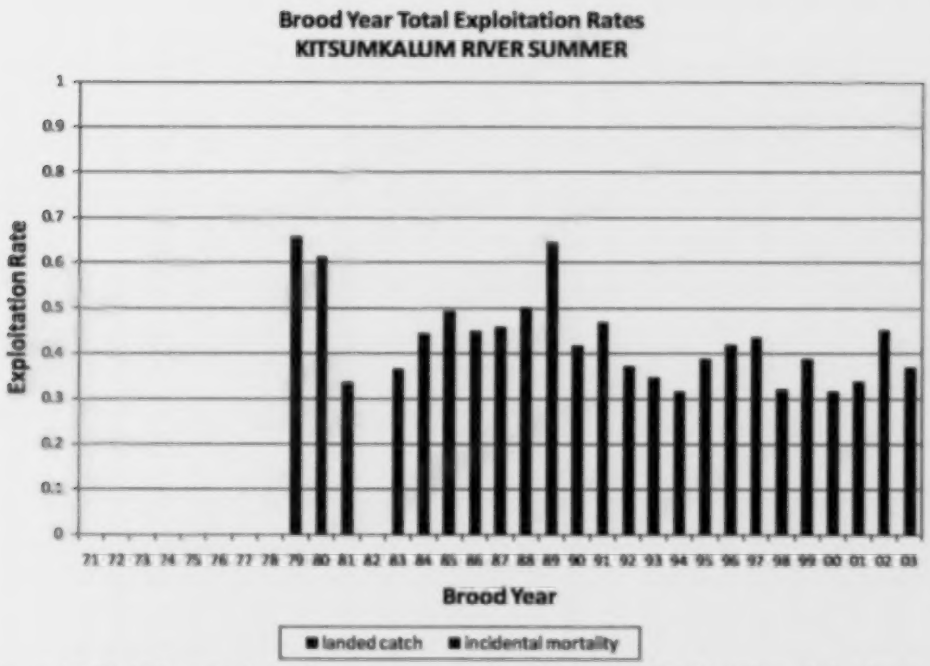

Figure E 13. Kitsumkalum River Summer (North/Central BC) total exploitation rates by brood year.

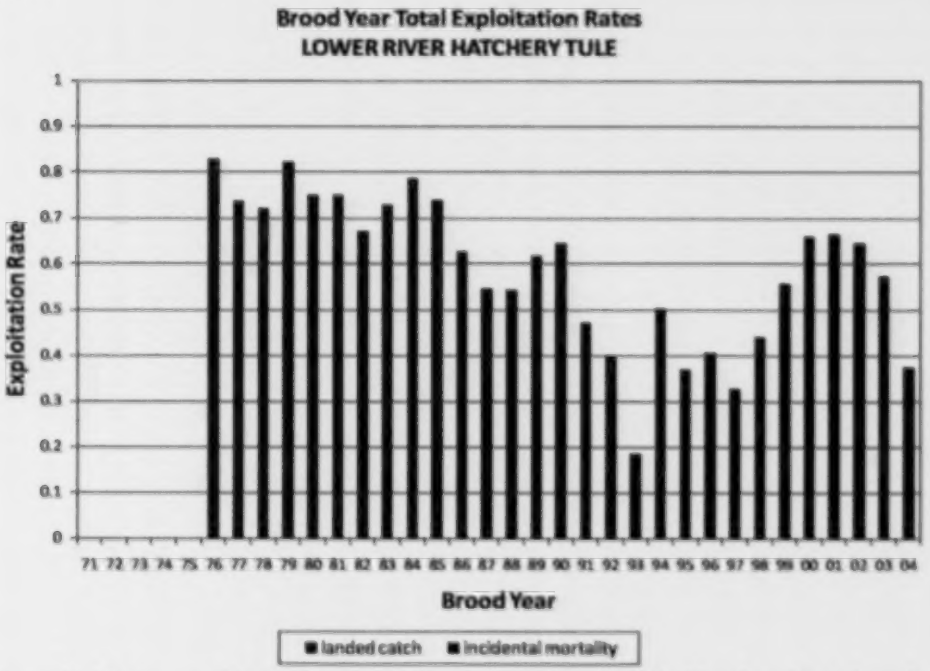

Figure E 14. Lower River Hatchery Tule (Lower Bonneville Hatchery) total exploitation rates by brood year.

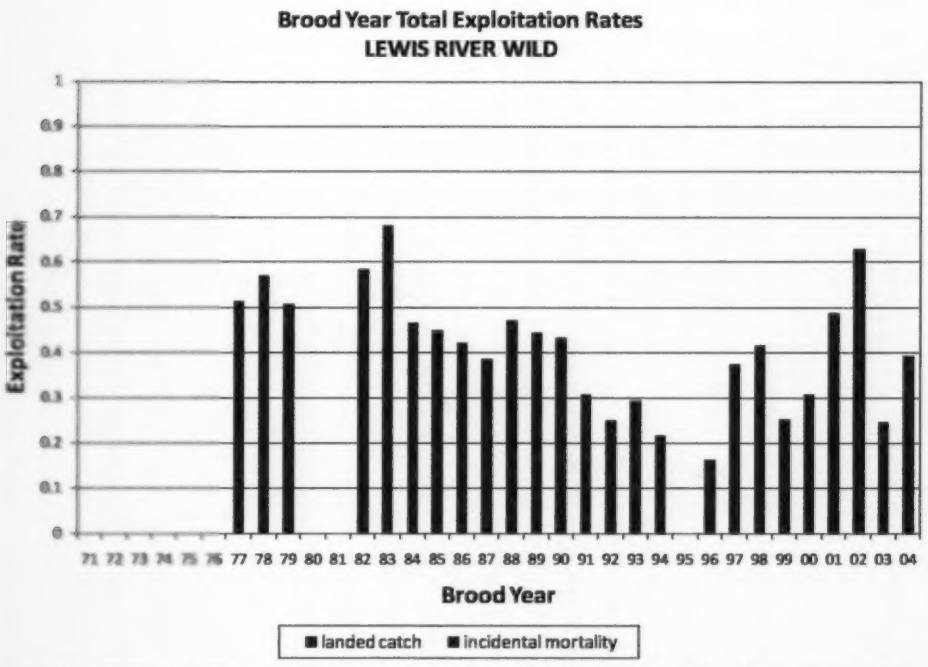

Figure E 15. Lewis River Wild (Lewis River Wild) total exploitation rates by brood year.

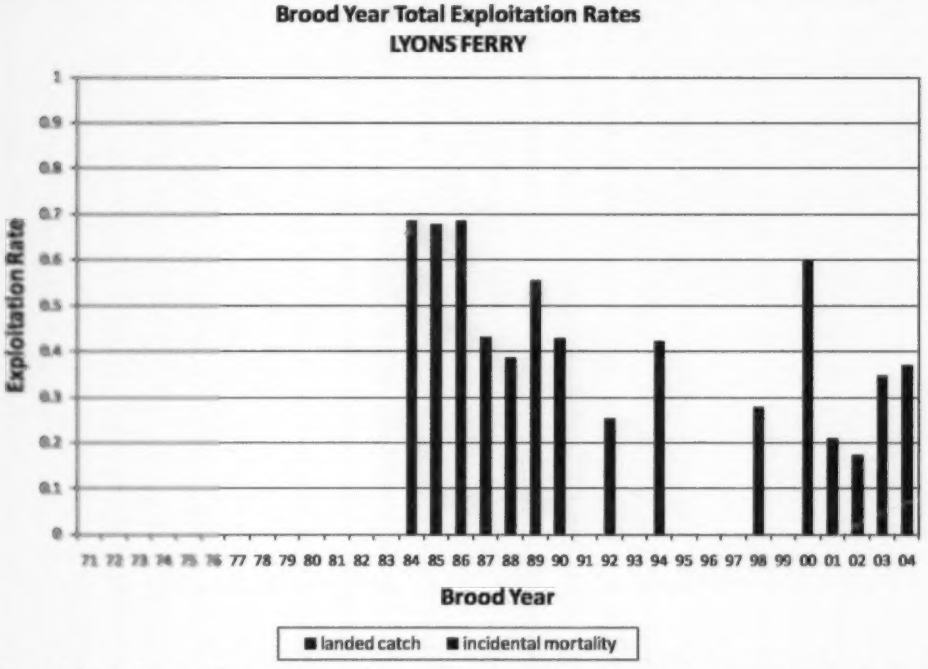

Figure E 16. Lyons Ferry (Lyons Ferry Hatchery) total exploitation rates by brood year.

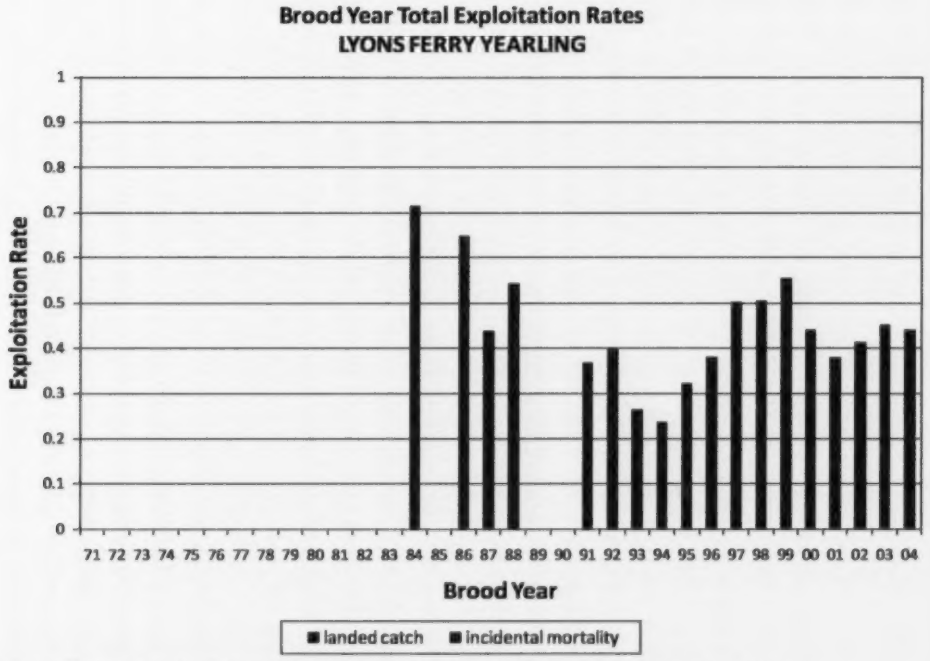

Figure E 17. Lyons Ferry Yearling total exploitation rates by brood year.

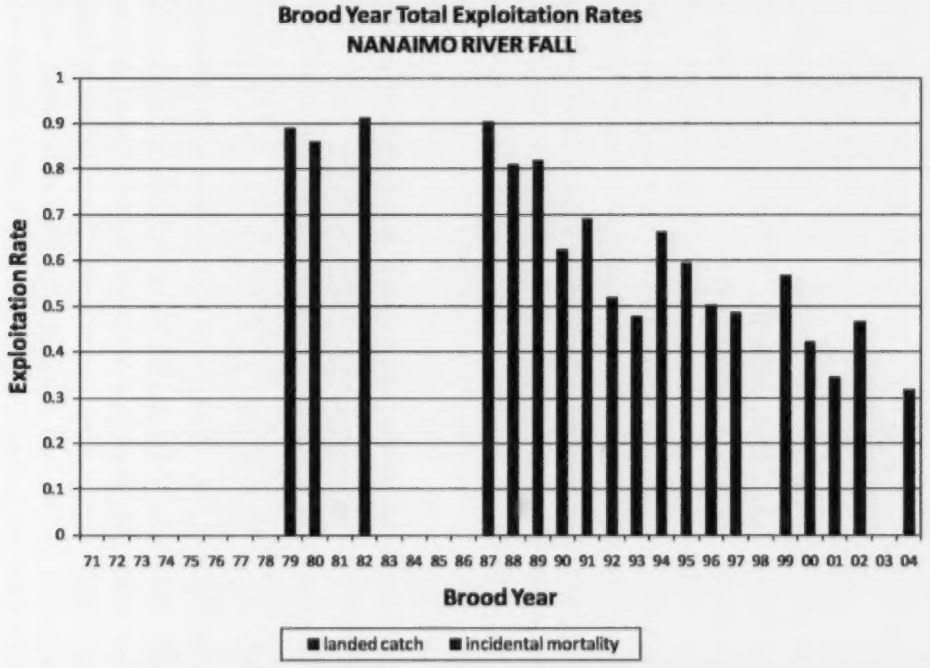

Figure E 18. Nanaimo River Fall (Lower Strait of Georgia Natural) total exploitation rates by brood year.

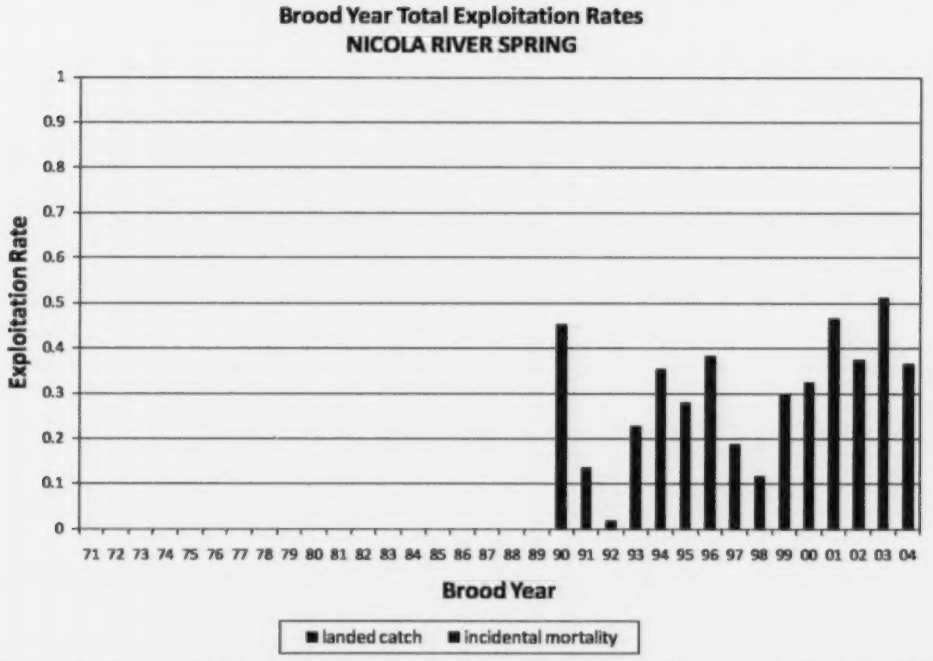

Figure E 19. Nicola River Spring (Fraser Early) total exploitation rates by brood year.

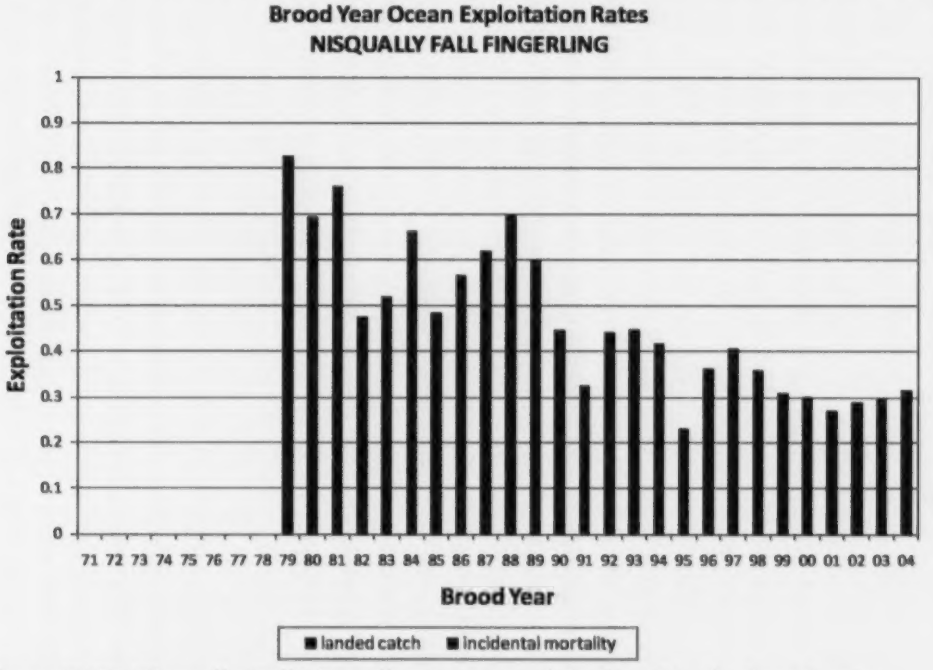

Figure E 20. Nisqually Fall Fingerling ocean exploitation rates by brood year.

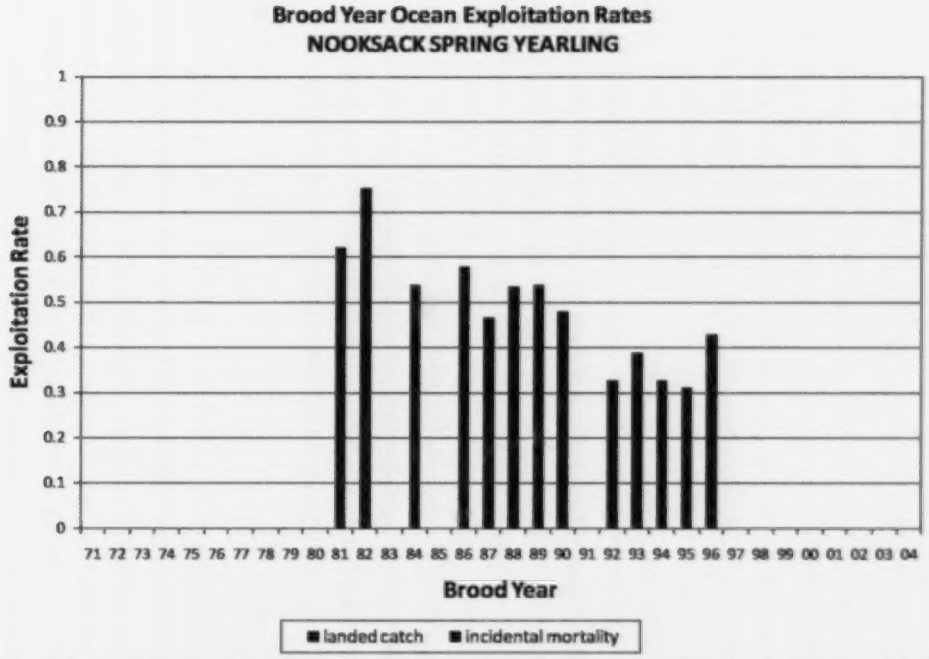

Figure E 21. Nooksack Spring Yearling (Nooksack Spring Yearling) ocean exploitation rates by brood year.

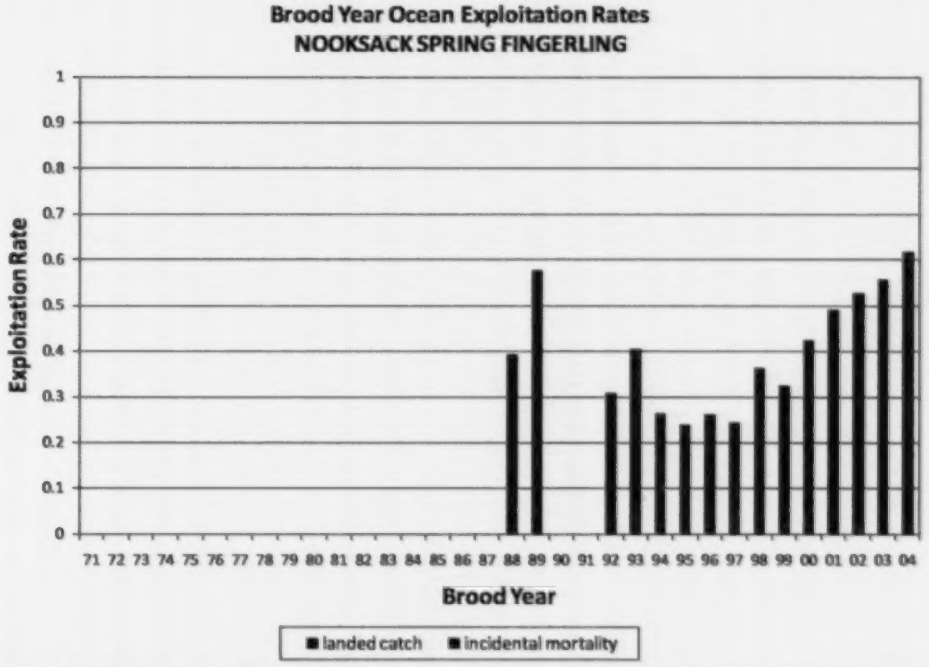

Figure E 22. Nooksack Spring Fingerling (Nooksack Spring Yearling) ocean exploitation rates by brood year.

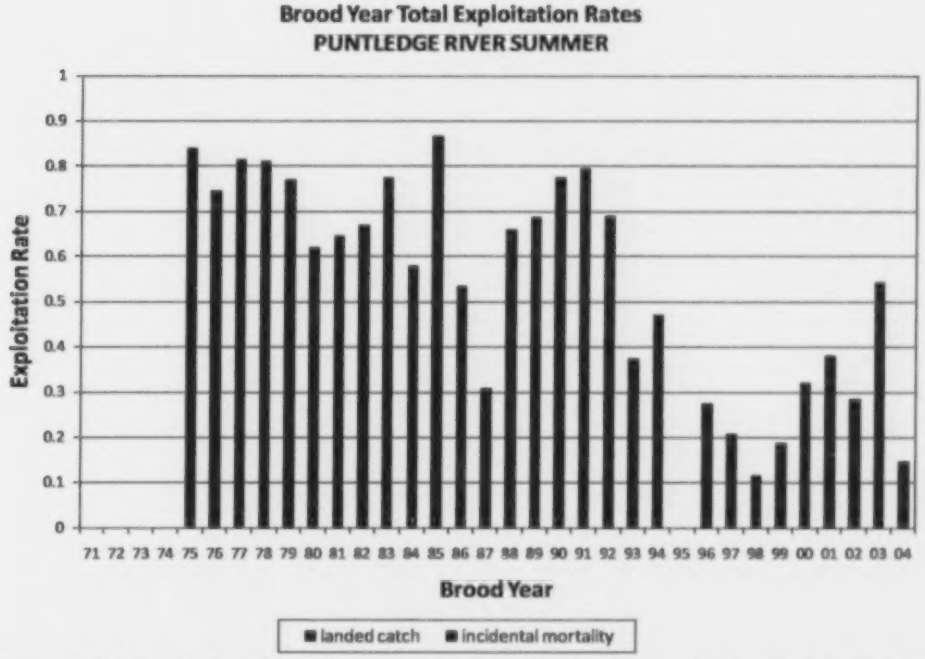

Figure E 23. Puntledge River Summer (Lower Strait of Georgia Hatchery) total exploitation rates by brood year.

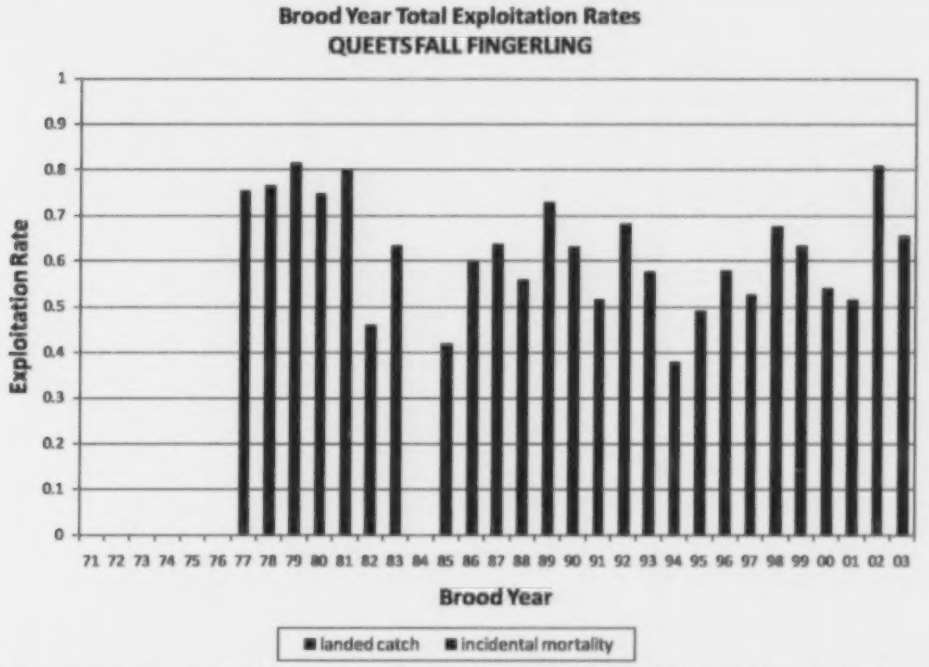

Figure E 24. Queets Fall Fingerling (Washington Coastal Wild) total exploitation rates by brood year.

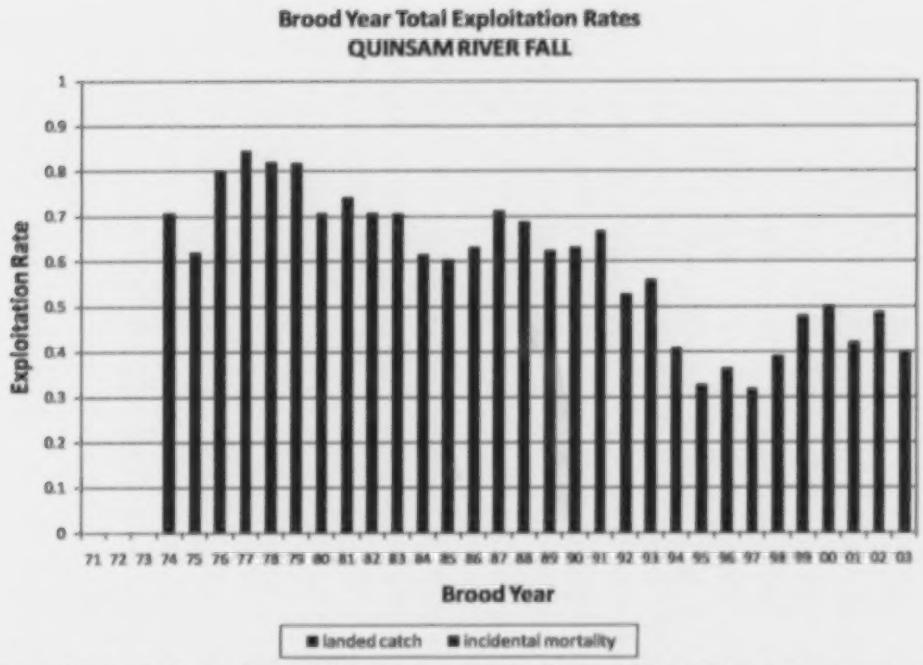

Figure E 25. Quinsam River Fall (Upper Strait of Georgia) total exploitation rates by brood year.

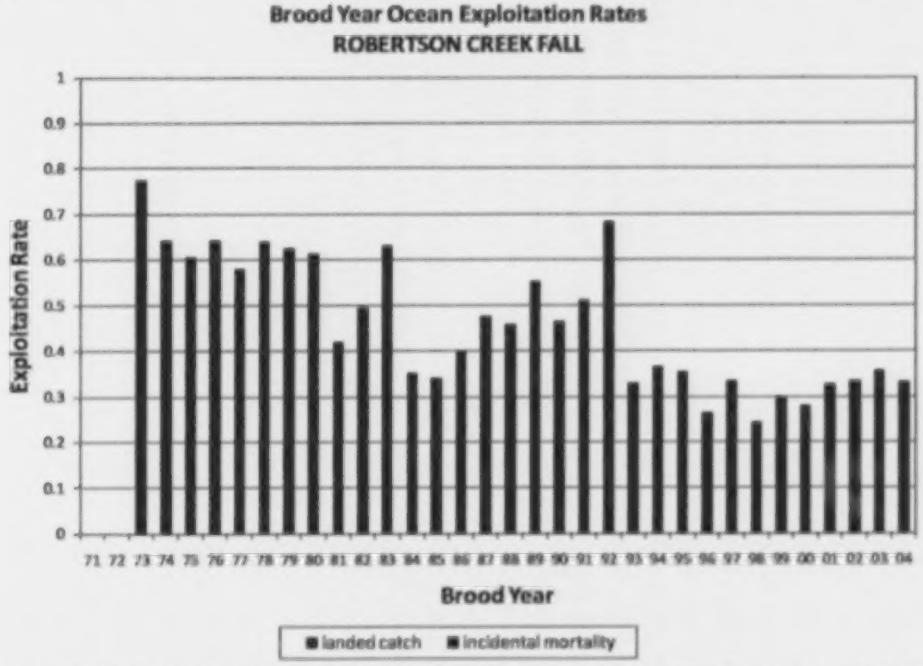

Figure E 26. Robertson Creek Fall (WCVI Hatchery and Natural) ocean exploitation rates by brood year.

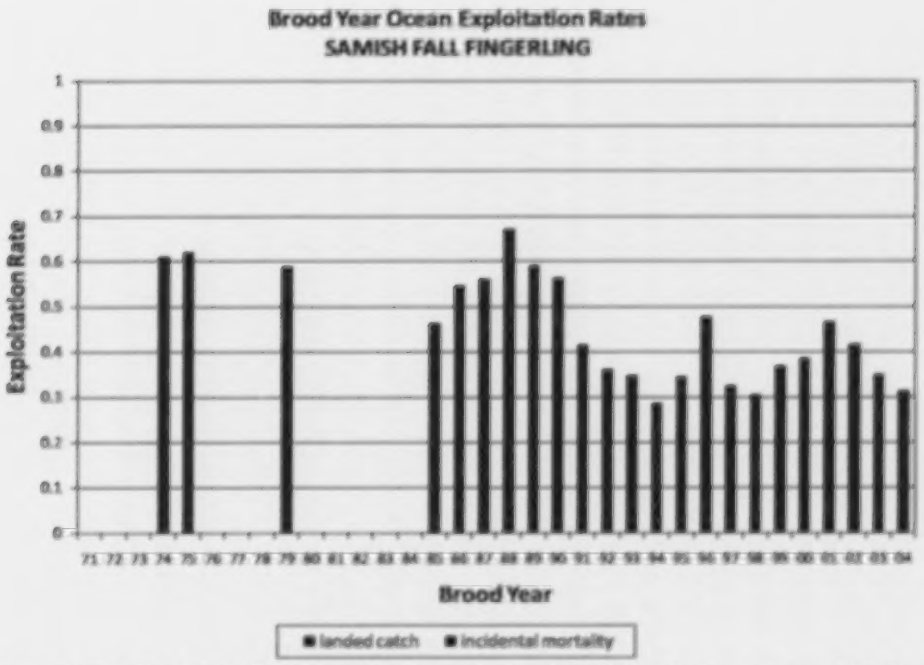

Figure E 27. Samish Fall Fingerling (Nooksack Fall Fingerling) ocean exploitation rates by brood year.

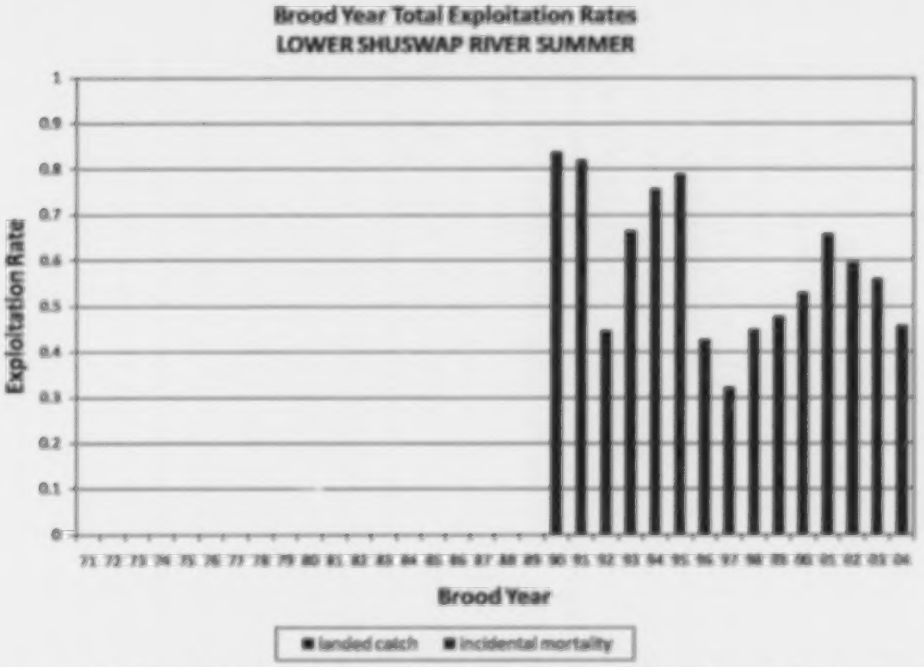

Figure E 28. Lower Shuswap River Summer (Fraser Early) total exploitation rates by brood year.

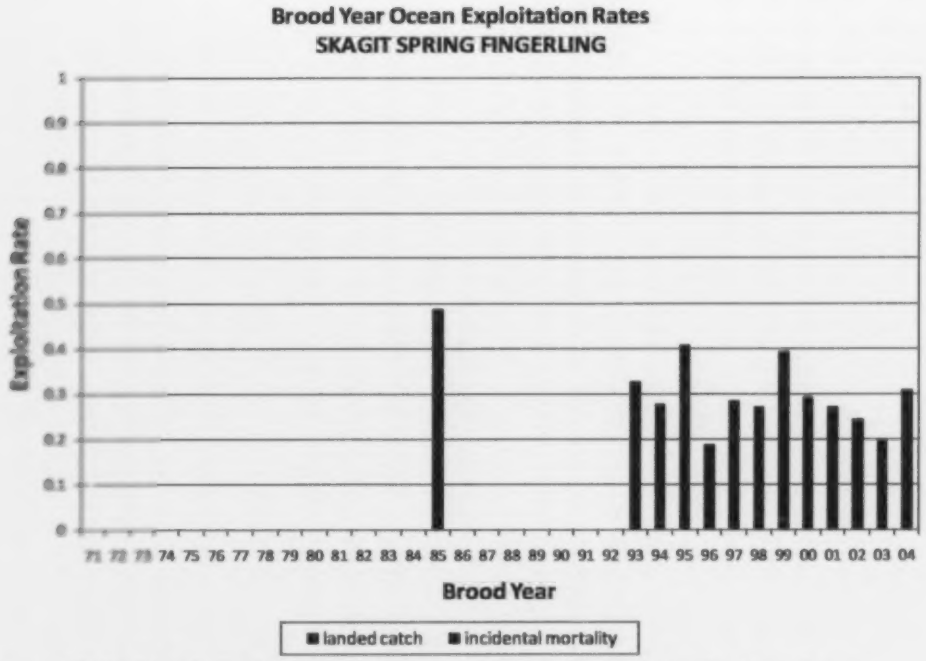

Figure E 29. Skagit Spring Fingerling ocean exploitation rates by brood year.

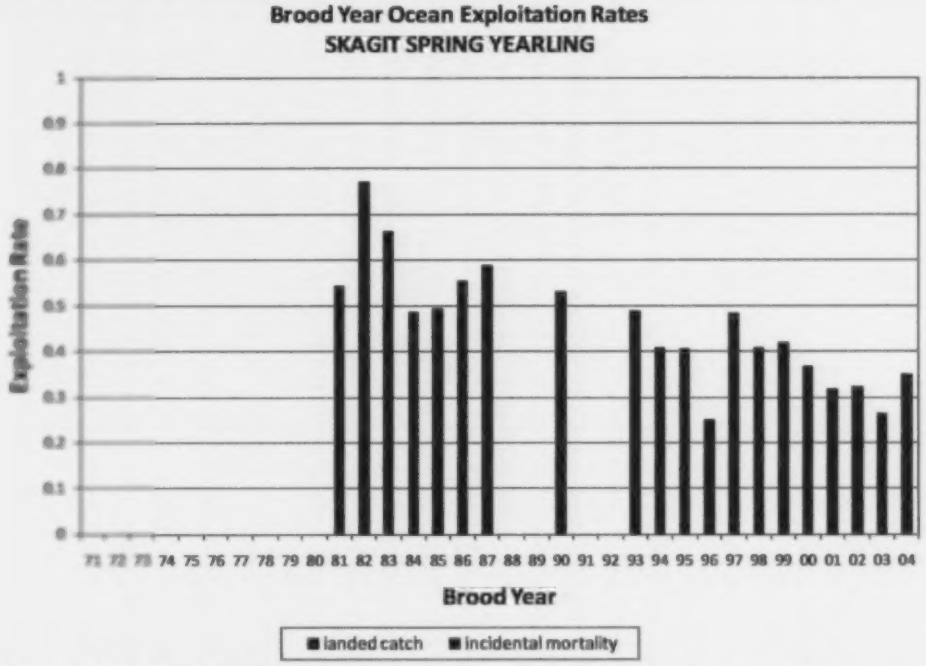

Figure E 30. Skagit Spring Yearling ocean exploitation rates by brood year.

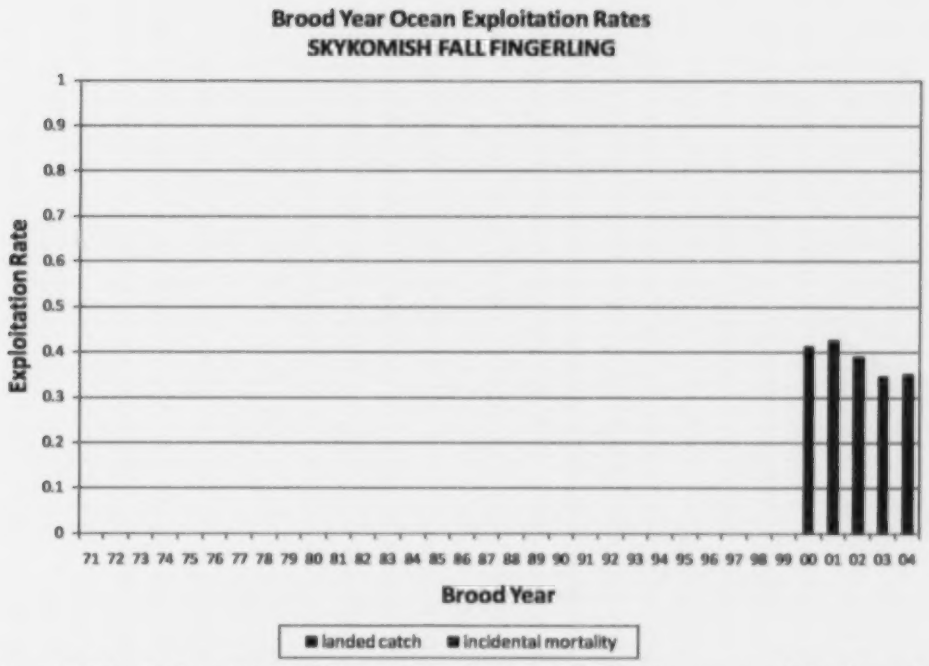

Figure E 31. Skykomish Fall Fingerling (Snohomish Wild) ocean exploitation rates by brood year.

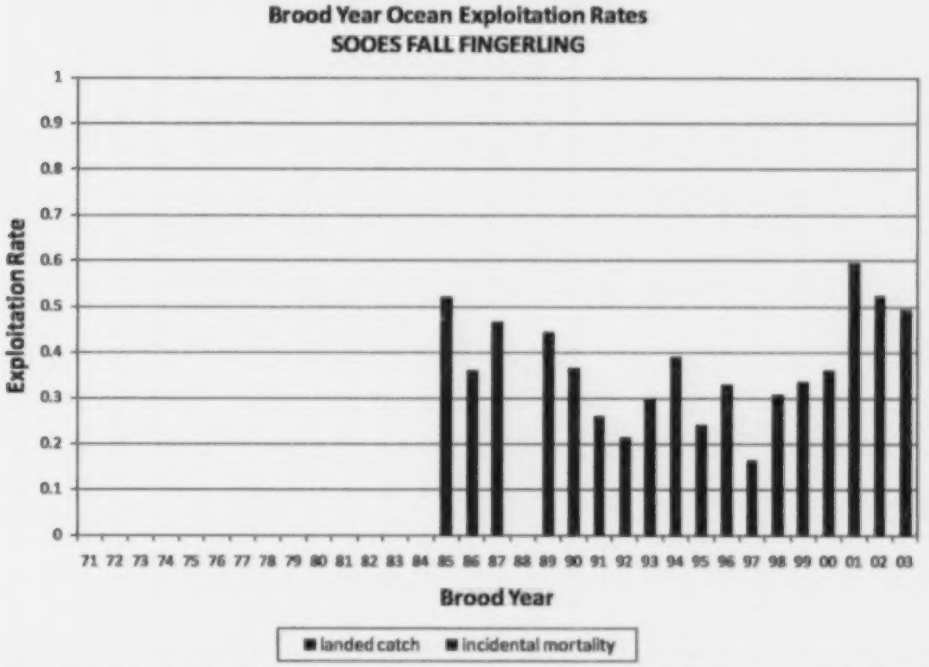

Figure E 32. Sooes Fall Fingerling (Washington Coastal Wild) ocean exploitation rates by brood year.

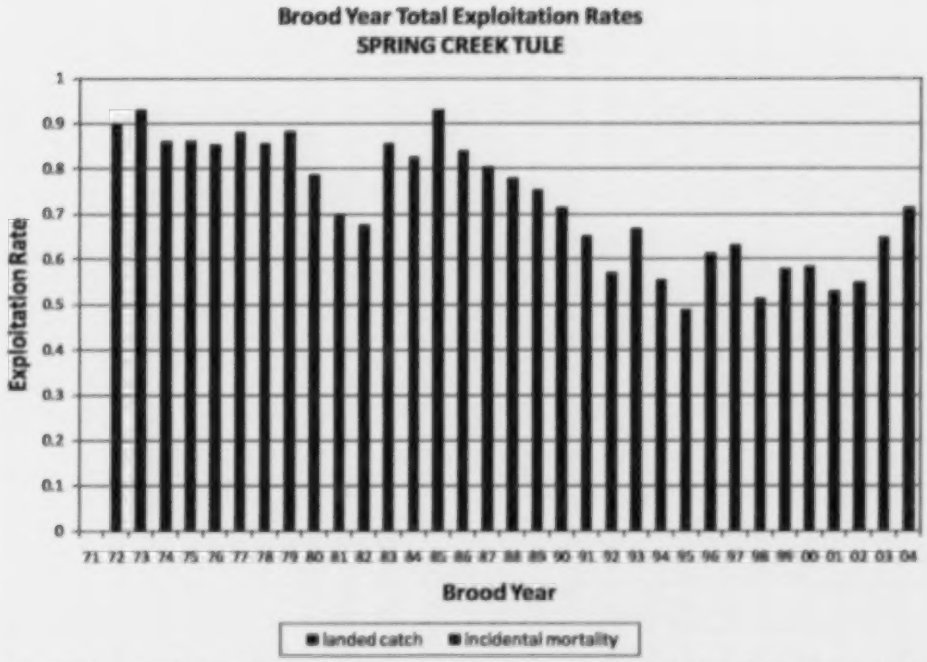

Figure E 33. Spring Creek Tule (Spring Creek Hatchery) total exploitation rates by brood year.

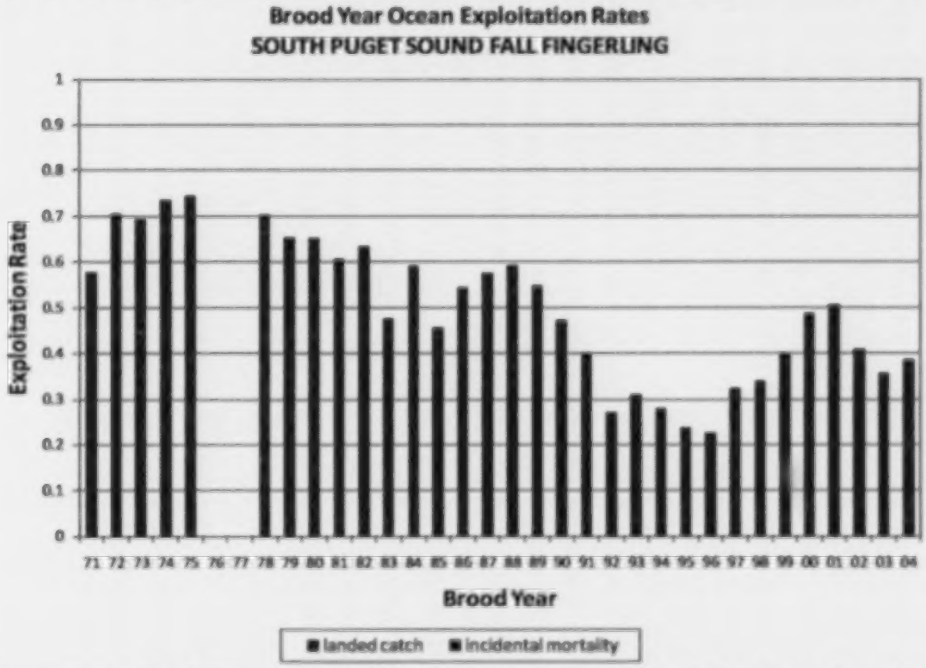

Figure E 34. South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) ocean exploitation rates by brood year.

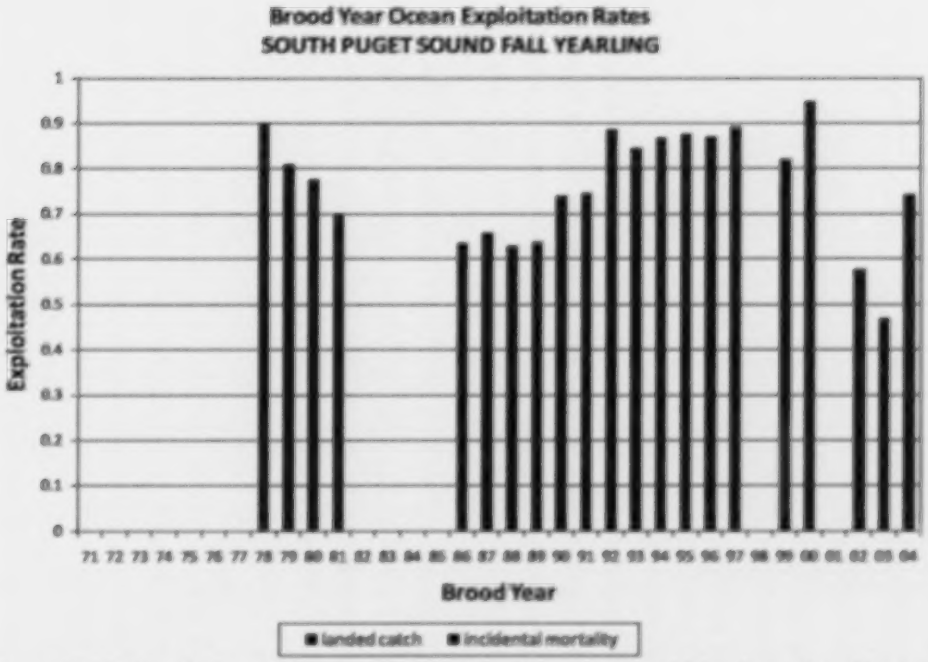

Figure E 35. South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

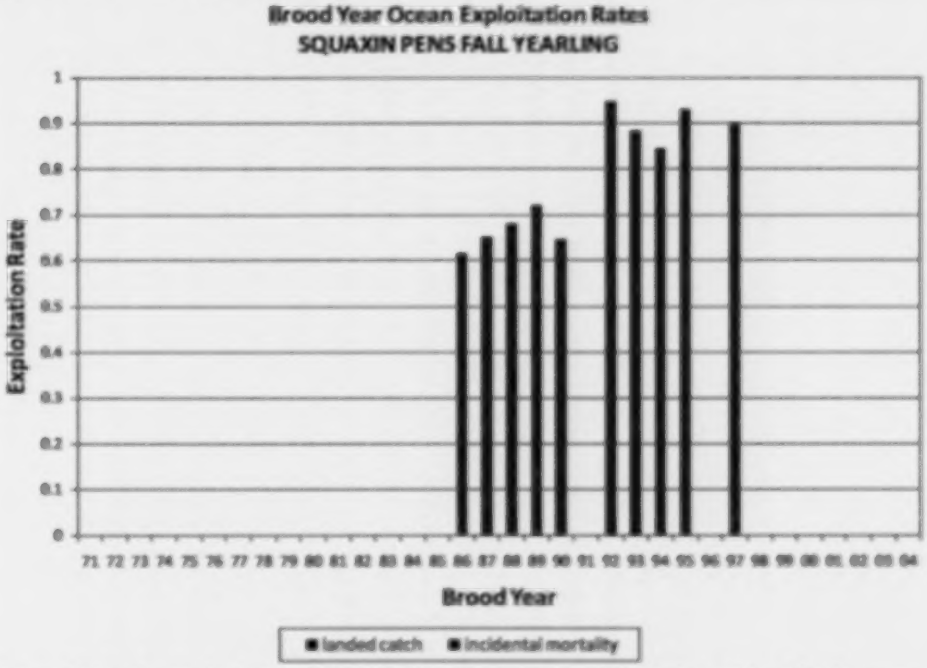

Figure E 36. Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

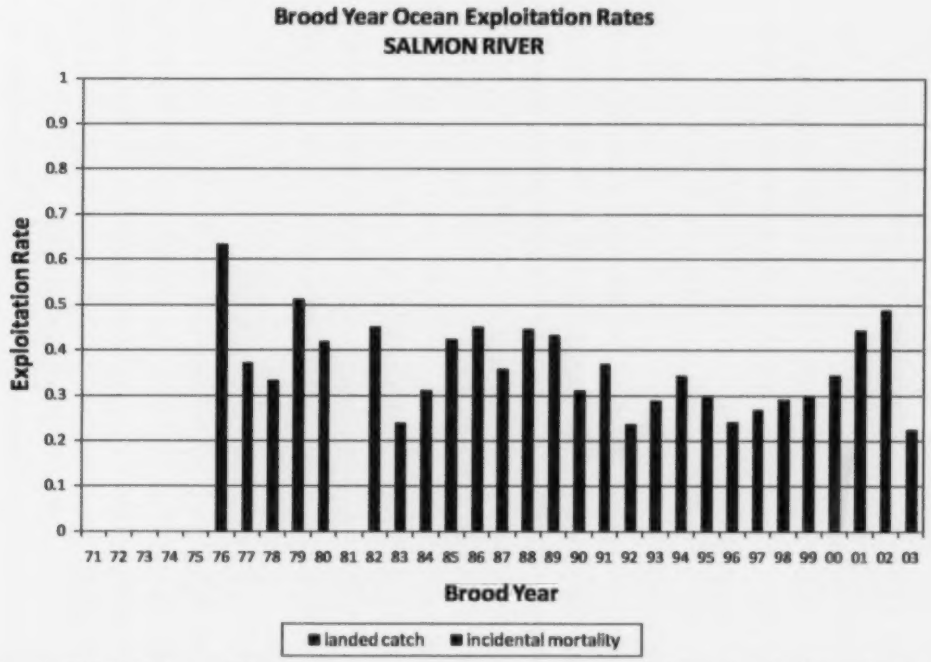

Figure E 37. Salmon River (Oregon Coast) ocean exploitation rates by brood year.

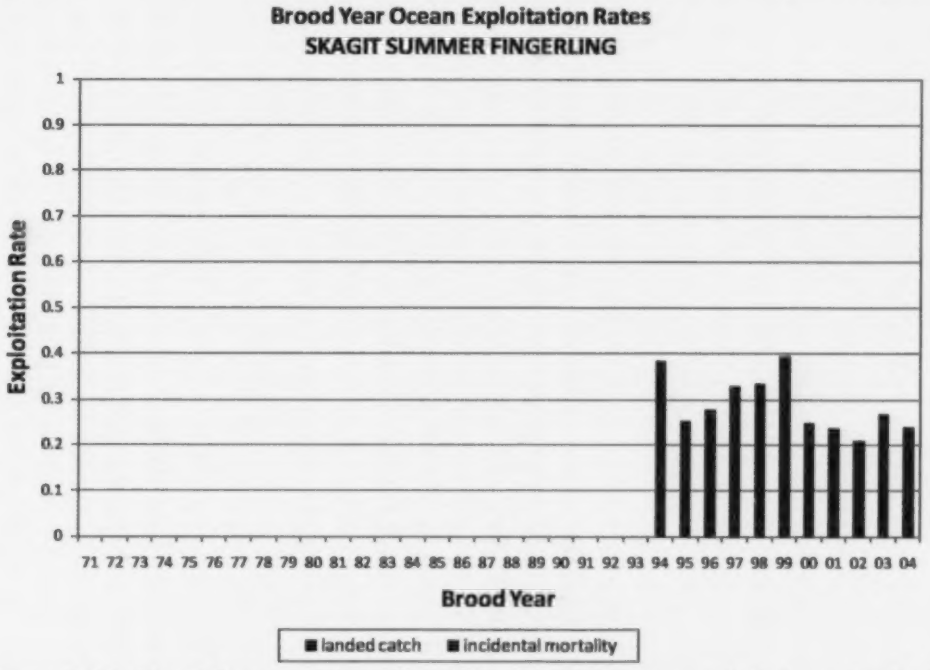

Figure E 38. Skagit Summer Fingerling (Skagit Wild) ocean exploitation rates by brood year.

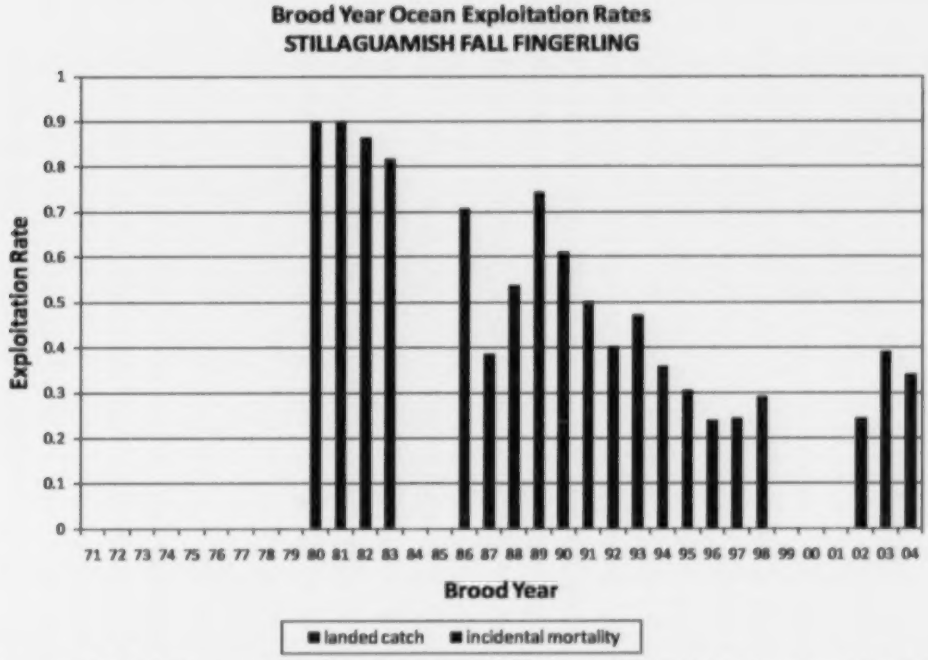

Figure E 39. Stillaguamish Fall Fingerling (Stillaguamish Wild) ocean exploitation rates by brood year.

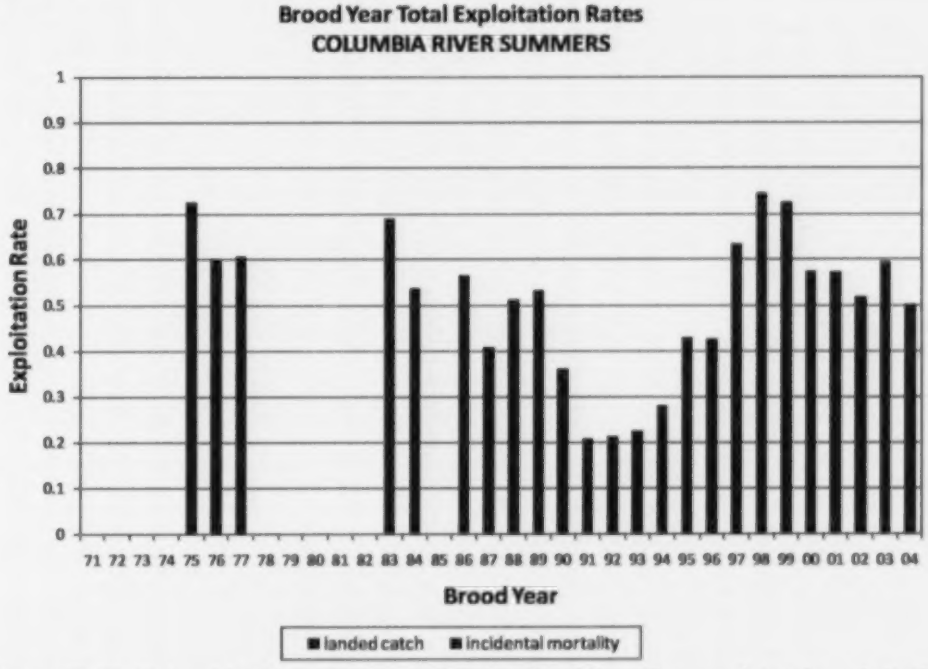

Figure E 40. Columbia River Summers (Columbia River Summer) total exploitation rates by brood year.

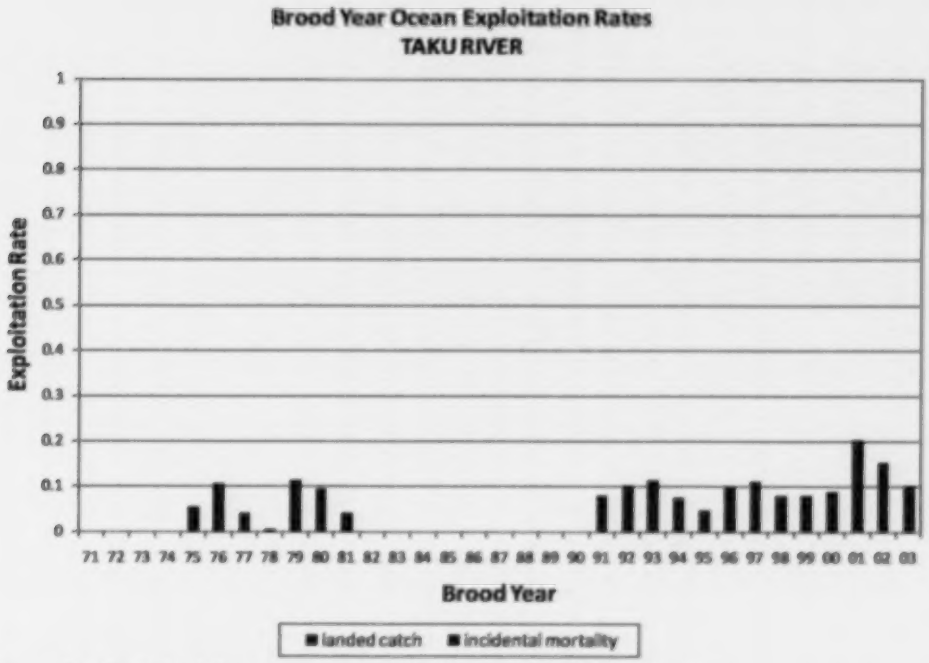

Figure E 41. Taku River ocean exploitation rates by brood year.

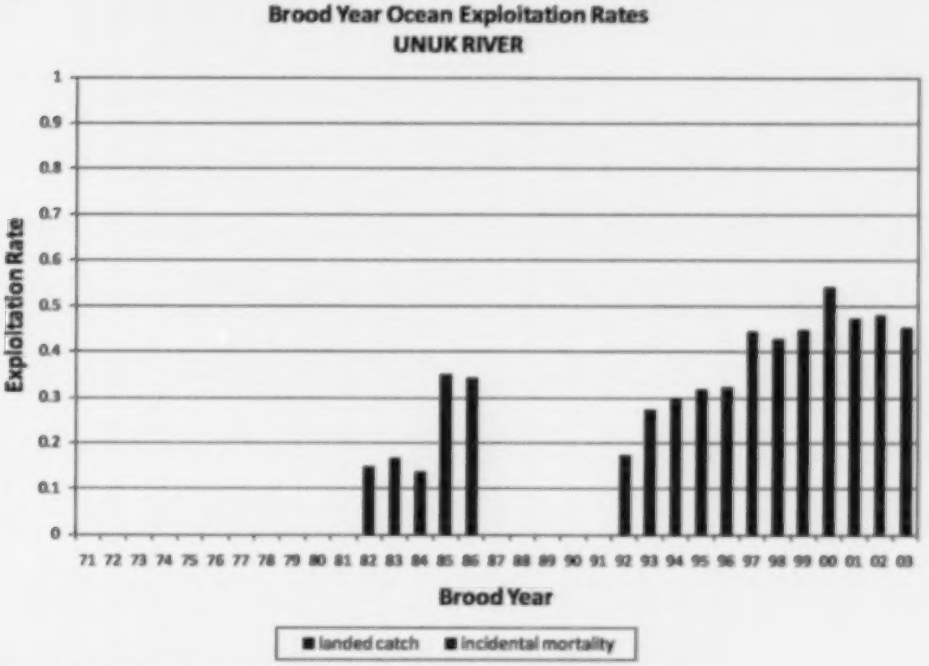

Figure E 42. Unuk River ocean exploitation rates by brood year.

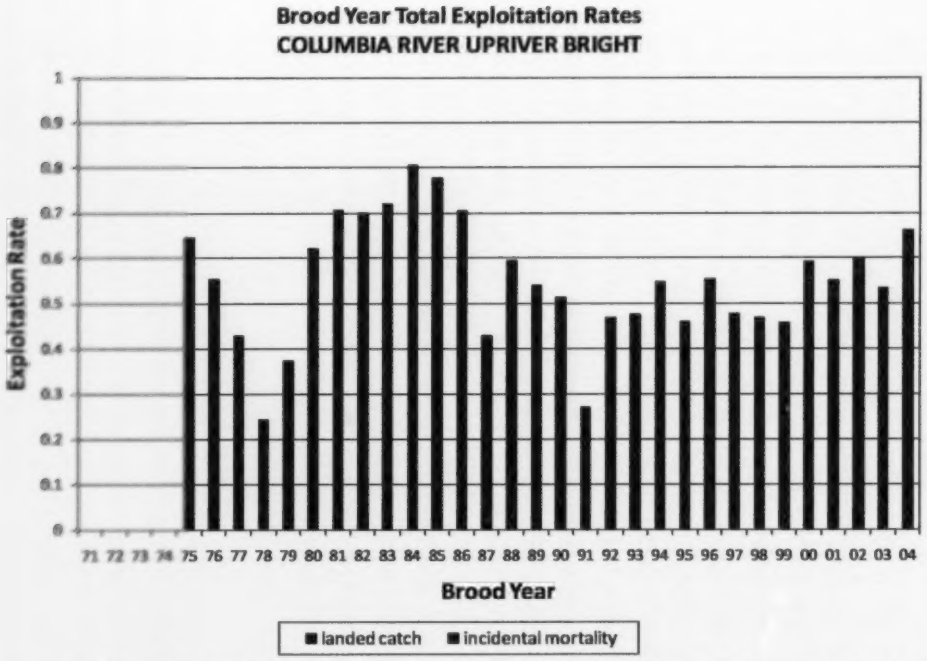

Figure E 43. Columbia River Upriver Bright (Columbia River Upriver Brights) total exploitation rates by brood year.

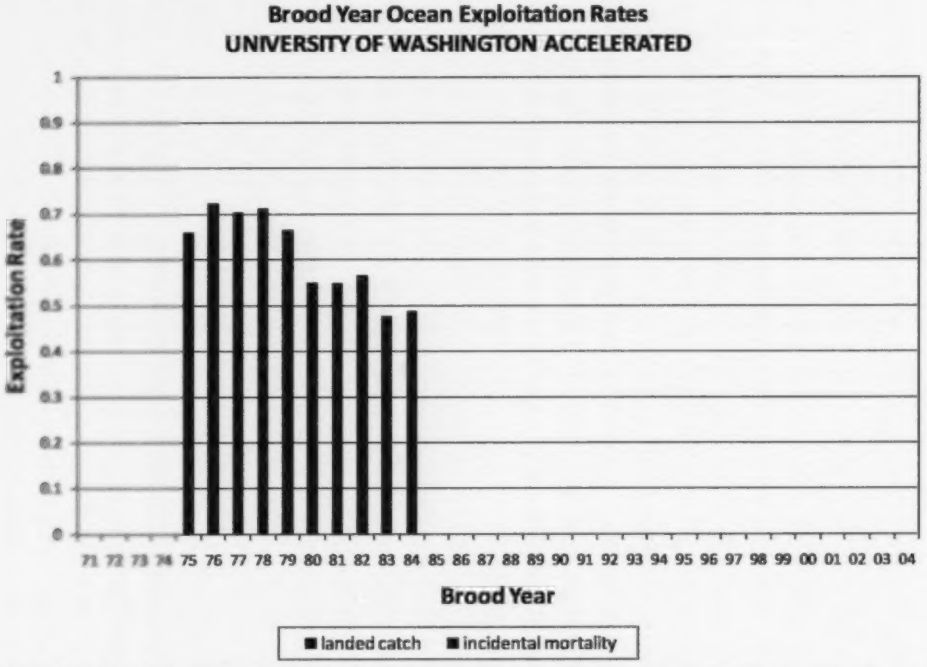

Figure E 44. University Of Washington Accelerated ocean exploitation rates by brood year.

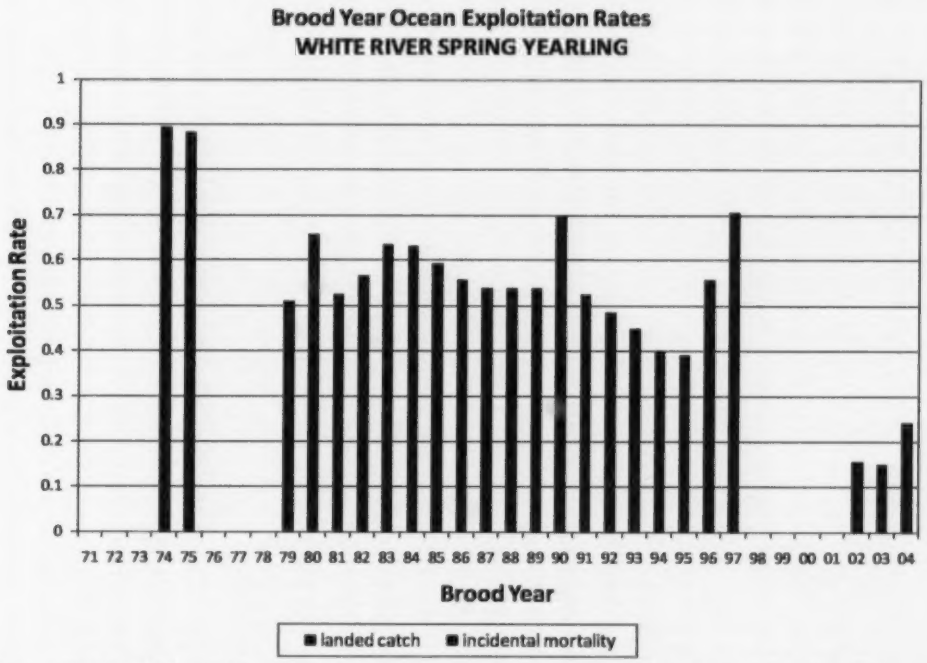

Figure E 45. White River Spring Yearling (Puget Sound Hatchery Yearling) ocean exploitation rates by brood year.

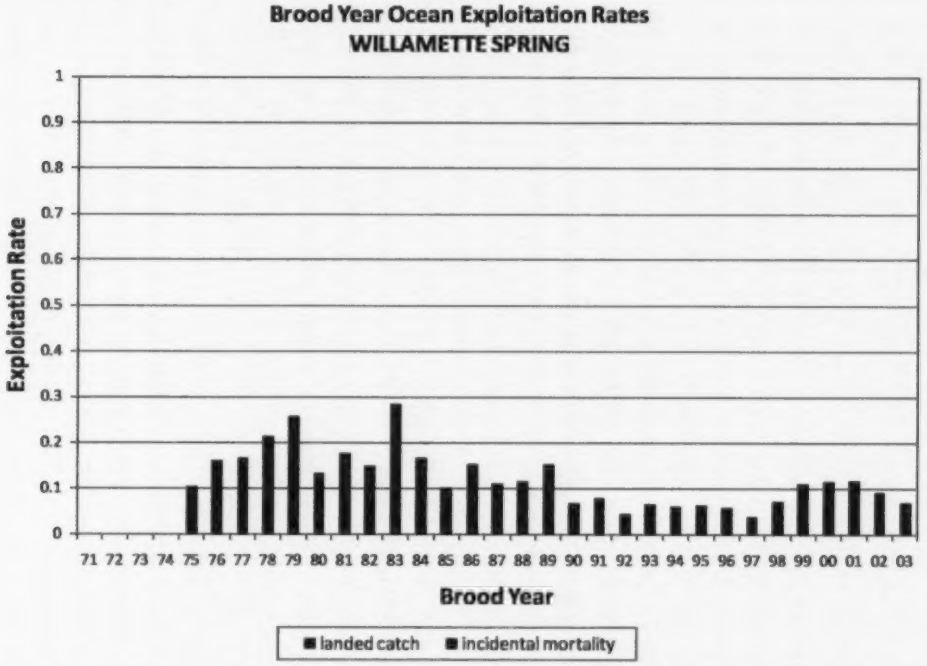

Figure E 46. Willamette Spring (Willamette River Hatchery) ocean exploitation rates by brood year.

Appendix F Total mortality and landed catch exploitation rates for exploitation rate indicator stocks with analogous model stocks in parentheses (complete broods only).

Appendix F.1. Southeast Alaska All Gear 239
Appendix F.2. North BC Troll and Sport 240
Appendix F.3. Central BC Troll 241
Appendix F.4 WCVI Troll and Outside Sport 242
Appendix F.5 Strait of Georgia Sport and Troll 243
Appendix F.6 Washington/Oregon Troll and Sport 244

Appendix F.1. Southeast Alaska All Gear

FISHERY:	SE ALASKA ALL GEAR				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
North/Central BC	14.61%	16.82%	22.26%	10.67%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
WCVI Hatchery	8.93%	15.70%	48.83%	17.34%	NA
Columbia Upriver Bright	23.68%	15.55%	27.63%	13.67%	Columbia Upriver Bright
Oregon Coastal North Migrating	9.37%	14.68%	35.69%	16.17%	Oregon Coastal
Fraser Early	6.97%	5.75%	30.27%	7.40%	Upper Fraser Middle Fraser Thompson
Mid-Columbia Brights	7.27%	5.42%	33.56%	13.52%	Not Represented
Upper Georgia Strait	4.61%	4.47%	35.08%	20.63%	Upper Georgia Strait
Alaska South SE	5.07%	4.04%	96.67%	37.23%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin
Washington Coastal Wild	2.23%	3.35%	20.87%	11.08%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
WCVI Wild	1.19%	3.24%	49.75%	17.42%	WCVI
Columbia Upriver Summer	6.63%	2.79%	33.98%	14.55%	Columbia Upriver Summer
WA Coastal Hatchery	2.43%	2.72%	18.70%	10.35%	NA
Willamette River Hatchery	4.86%	2.13%	11.93%	5.19%	NA
Fall Cowlitz Hatchery	0.29%	1.03%	5.76%	2.22%	NA
Lewis River Wild	0.53%	0.80%	17.82%	7.83%	Lewis River
Lower GS Hatchery	0.24%	0.41%	3.76%	1.97%	NA
Lower Georgia Strait	0.08%	0.23%	4.08%	2.17%	Lower Georgia Strait
Fraser Late	0.07%	0.20%	0.42%	0.15%	Harrison
PS Hatchery Fingerling	0.21%	0.19%	0.48%	0.26%	NA
Snake River Fall	0.37%	0.09%	8.78%	5.35%	Not Represented
Skagit Summer/Fall	0.02%	0.09%	3.93%	1.11%	Skagit Summer/Fall
Spring Cowlitz Hatchery	0.09%	0.08%	1.63%	0.84%	NA
Stillaguamish Summer/Fall	0.04%	0.06%	18.07%	6.30%	Stillaguamish
PS Yearling	0.09%	0.05%	0.53%	0.35%	NA
Puget Sound Natural	0.03%	0.05%	0.56%	0.26%	Green, Lake Washington
Nooksack Fall	0.02%	0.04%	0.15%	0.11%	NA
Snohomish Summer/Fall	0.06%	0.04%	3.73%	1.03%	Snohomish
Spring Creek Hatchery	0.00%	0.00%	0.00%	0.00%	NA
Lower Bonneville Hatchery	0.00%	0.00%	0.00%	0.00%	NA
Nooksack Spring	0.00%	0.00%	0.00%	0.00%	Not Represented

Appendix F.2. North BC Troll and Sport

FISHERY:	NORTH TROLL AND SPORT				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
North/Central BC	62.01%	53.37%	68.95%	36.34%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
Oregon Coastal North Migrating	5.14%	11.53%	27.15%	13.37%	Oregon Coastal
Columbia Upriver Bright	6.25%	5.90%	10.90%	5.64%	Columbia Upriver Bright
WCVI Hatchery	2.17%	5.12%	14.81%	5.77%	NA
Upper Georgia Strait	5.08%	4.11%	35.45%	21.15%	Upper Georgia Strait
Willamette River Hatchery	3.26%	2.84%	15.31%	7.31%	NA
Fraser Early	2.58%	2.84%	16.14%	4.50%	Upper Fraser Middle Fraser Thompson
Washington Coastal Wild	1.13%	2.51%	14.81%	8.51%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
WA Coastal Hatchery	1.22%	1.98%	13.67%	7.98%	NA
Mid-Columbia Brights	1.86%	1.81%	12.85%	5.49%	Not Represented
Columbia Upriver Summer	4.29%	1.79%	23.98%	10.80%	Columbia Upriver Summer
WCVI Wild	0.28%	1.13%	15.00%	5.77%	WCVI
Lower GS Hatchery	0.62%	0.94%	9.49%	5.00%	NA
Fraser Late	0.86%	0.80%	1.69%	0.68%	Harrison
Fall Cowlitz Hatchery	0.69%	0.78%	4.41%	1.82%	NA
Lower Georgia Strait	0.34%	0.46%	9.29%	5.09%	Lower Georgia Strait
Nooksack Fall	0.42%	0.40%	1.92%	1.39%	NA
Skagit Summer/Fall	0.27%	0.33%	16.19%	4.64%	Skagit Summer/Fall
PS Hatchery Fingerling	0.37%	0.30%	0.87%	0.49%	NA
Lewis River Wild	0.14%	0.28%	5.65%	2.81%	Lewis River
Spring Cowlitz Hatchery	0.16%	0.21%	4.53%	2.49%	NA
Snohomish Summer/Fall	0.22%	0.17%	16.53%	4.70%	Snohomish
PS Yearling	0.29%	0.16%	2.16%	1.41%	NA
Alaska South SE	0.07%	0.08%	2.30%	0.88%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin
Puget Sound Natural	0.04%	0.07%	0.92%	0.44%	Green, Lake Washington
Snake River Fall	0.18%	0.05%	6.01%	3.89%	Not Represented
Stillaguamish Summer/Fall	0.02%	0.03%	11.17%	4.00%	Stillaguamish
Spring Creek Hatchery	0.01%	0.01%	0.06%	0.04%	NA
Nooksack Spring	0.00%	0.00%	1.55%	0.50%	Not Represented
Lower Bonneville Hatchery	0.00%	0.00%	0.00%	0.00%	NA

Appendix F.3. Central BC Troll

FISHERY:	CENTRAL TROLL				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
Fraser Late	0.00%	18.42%	1.70%	0.97%	Harrison
WCVI Hatchery	0.00%	15.40%	2.91%	1.21%	NA
Columbia Upriver Bright	0.00%	7.65%	0.74%	0.43%	Columbia Upriver Bright
North/Central BC	0.00%	6.57%	0.80%	0.34%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
Upper Georgia Strait	0.00%	5.57%	2.73%	1.77%	Upper Georgia Strait
Columbia Upriver Summer	0.00%	3.76%	2.89%	1.38%	Columbia Upriver Summer
WCVI Wild	0.00%	3.10%	2.87%	1.20%	WCVI
Fraser Early	0.00%	2.82%	0.82%	0.29%	Upper Fraser Middle Fraser Thompson
Washington Coastal Wild	0.00%	2.78%	0.93%	0.62%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
Lower GS Hatchery	0.00%	2.58%	1.13%	0.79%	NA
WA Coastal Hatchery	0.00%	2.19%	0.88%	0.57%	NA
Mid-Columbia Brights	0.00%	2.17%	0.87%	0.45%	Not Represented
Oregon Coastal North Migrating	0.00%	2.06%	0.30%	0.15%	Oregon Coastal
Lower Bonneville Hatchery	0.00%	1.70%	0.81%	0.41%	NA
Lower Georgia Strait	0.00%	1.28%	1.08%	0.78%	Lower Georgia Strait
Nooksack Fall	0.00%	1.27%	0.30%	0.25%	NA
PS Hatchery Fingerling	0.00%	1.24%	0.21%	0.14%	NA
Skagit Summer/Fall	0.00%	0.78%	1.76%	0.74%	Skagit Summer/Fall
Lewis River Wild	0.00%	0.50%	0.50%	0.28%	Lewis River
Snohomish Summer/Fall	0.00%	0.43%	1.41%	0.76%	Snohomish
PS Yearling	0.00%	0.35%	0.31%	0.24%	NA
Puget Sound Natural	0.00%	0.35%	0.23%	0.14%	Green, Lake Washington
Spring Creek Hatchery	0.00%	0.33%	0.08%	0.06%	NA
Willamette River Hatchery	0.00%	0.29%	0.09%	0.05%	NA
Fall Cowlitz Hatchery	0.00%	0.13%	0.04%	0.02%	NA
Spring Cowlitz Hatchery	0.00%	0.11%	0.15%	0.11%	NA
Snake River Fall	0.00%	0.08%	0.57%	0.42%	Not Represented
Stillaguamish Summer/Fall	0.00%	0.08%	1.56%	0.76%	Stillaguamish
Nooksack Spring	0.00%	0.01%	0.23%	0.13%	Not Represented
Alaska South SE	0.00%	0.00%	0.01%	0.00%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin

Appendix F.4 WCVI Troll and Outside Sport

FISHERY:	WCVI TROLL AND OUTSIDE SPORT				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
Fraser Late	33.54%	22.54%	22.72%	11.12%	Harrison
PS Hatchery Fingerling	7.50%	11.11%	15.16%	9.40%	NA
Columbia Upriver Bright	10.72%	8.95%	9.49%	5.15%	Columbia Upriver Bright
Fall Cowlitz Hatchery	6.35%	6.90%	23.11%	10.71%	NA
Spring Creek Hatchery	14.06%	6.84%	14.26%	11.18%	NA
Lower Bonneville Hatchery	3.12%	5.62%	31.31%	14.65%	NA
Oregon Coastal North Migrating	2.27%	4.92%	7.58%	3.75%	Oregon Coastal
Nooksack Fall	1.63%	4.59%	10.48%	8.09%	NA
WCVI Hatchery	0.00%	4.17%	6.78%	3.05%	NA
Mid-Columbia Brights	3.94%	3.50%	12.46%	5.67%	Not Represented
Columbia Upriver Summer	4.17%	2.86%	21.07%	9.82%	Columbia Upriver Summer
Puget Sound Natural	0.99%	2.75%	17.15%	9.47%	Green, Lake Washington
Washington Coastal Wild	1.45%	2.36%	8.68%	4.84%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
Willamette River Hatchery	2.23%	2.10%	6.51%	3.18%	NA
WA Coastal Hatchery	1.54%	2.02%	8.19%	4.68%	NA
PS Yearling	1.49%	1.54%	9.76%	7.07%	NA
Fraser Early	1.13%	1.42%	4.08%	1.11%	Upper Fraser Middle Fraser Thompson
WCVI Wild	0.00%	1.05%	6.77%	3.06%	WCVI
Skagit Summer/Fall	0.54%	0.92%	20.61%	6.96%	Skagit Summer/Fall
Lewis River Wild	0.38%	0.79%	10.22%	5.08%	Lewis River
Spring Cowlitz Hatchery	0.41%	0.69%	7.41%	4.76%	NA
Lower GS Hatchery	0.24%	0.50%	2.47%	1.38%	NA
North/Central BC	0.30%	0.49%	0.39%	0.19%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
Snohomish Summer/Fall	0.37%	0.49%	19.28%	7.04%	Snohomish
Snake River Fall	1.32%	0.41%	22.27%	15.04%	Not Represented
Lower Georgia Strait	0.19%	0.24%	2.40%	1.39%	Lower Georgia Strait
Upper Georgia Strait	0.07%	0.11%	0.53%	0.33%	Upper Georgia Strait
Stillaguamish Summer/Fall	0.04%	0.11%	16.21%	6.64%	Stillaguamish
Nooksack Spring	0.01%	0.02%	10.39%	3.72%	Not Represented
Alaska South SE	0.00%	0.00%	0.00%	0.00%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin

Appendix F.5 Strait of Georgia Sport and Troll

FISHERY:	GS SPORT AND TROLL				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
Oregon Coastal North Migrating	10.48%	22.37%	25.76%	11.28%	Oregon Coastal
Willamette River Hatchery	53.33%	18.25%	44.42%	21.78%	NA
WCVI Hatchery	4.14%	9.67%	14.24%	4.94%	NA
Lower GS Hatchery	3.90%	9.07%	34.08%	19.26%	NA
Columbia Upriver Bright	10.51%	7.35%	5.40%	2.63%	Columbia Upriver Bright
Spring Cowlitz Hatchery	3.48%	5.97%	50.86%	31.27%	NA
Lewis River Wild	0.61%	5.33%	41.04%	22.72%	Lewis River
Fraser Late	0.00%	4.99%	3.61%	2.21%	Harrison
Lower Georgia Strait	2.35%	4.31%	32.93%	19.32%	Lower Georgia Strait
Fall Cowlitz Hatchery	5.62%	3.57%	9.71%	3.81%	NA
North/Central BC	1.41%	2.68%	1.84%	0.84%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
WCVI Wild	0.54%	1.89%	14.55%	5.00%	WCVI
Mid-Columbia Brights	1.37%	1.47%	3.68%	1.40%	Not Represented
Nooksack Fall	0.70%	1.20%	2.15%	1.62%	NA
Lower Bonneville Hatchery	0.38%	0.43%	1.90%	0.76%	NA
PS Yearling	0.19%	0.35%	1.94%	1.47%	NA
PS Hatchery Fingerling	0.09%	0.34%	0.46%	0.30%	NA
Columbia Upriver Summer	0.39%	0.29%	1.82%	0.80%	Columbia Upriver Summer
Snake River Fall	0.45%	0.15%	4.41%	2.61%	Not Represented
Puget Sound Natural	0.01%	0.10%	0.48%	0.29%	Green, Lake Washington
Skagit Summer/Fall	0.02%	0.07%	1.30%	0.51%	Skagit Summer/Fall
Snohomish Summer/Fall	0.01%	0.04%	1.04%	0.51%	Snohomish
Upper Georgia Strait	0.00%	0.04%	0.19%	0.13%	Upper Georgia Strait
Fraser Early	0.00%	0.03%	0.10%	0.04%	Upper Fraser Middle Fraser Thompson
Nooksack Spring	0.00%	0.02%	4.89%	2.72%	Not Represented
Spring Creek Hatchery	0.02%	0.01%	0.03%	0.02%	NA
WA Coastal Hatchery	0.00%	0.00%	0.00%	0.00%	NA
Washington Coastal Wild	0.00%	0.00%	0.00%	0.00%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
Stillaguamish Summer/Fall	0.00%	0.00%	0.00%	0.00%	Stillaguamish
Alaska South SE	0.00%	0.00%	0.00%	0.00%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin

Appendix F.6 Washington/Oregon Troll and Sport

FISHERY:	WA/OR TROLL AND SPORT				
	2010	Average (1985-2009)			
Model Stock	Percent of Fishery Catch	Percent of Fishery Catch	Percent of Stock Catch	Percent of Stock Total Return	Associated Escapement Indicator Stocks
Spring Creek Hatchery	38.32%	22.99%	30.38%	23.94%	NA
Fraser Late	20.73%	19.47%	12.09%	5.72%	Harrison
Fall Cowlitz Hatchery	18.56%	19.05%	40.77%	17.82%	NA
Lower Bonneville Hatchery	5.14%	10.74%	39.95%	17.20%	NA
Spring Cowlitz Hatchery	2.14%	4.58%	33.65%	19.46%	NA
PS Hatchery Fingerling	1.86%	4.49%	3.67%	2.18%	NA
Columbia Upriver Bright	4.22%	4.11%	2.70%	1.40%	Columbia Upriver Bright
Oregon Coastal North Migrating	1.18%	2.67%	2.47%	1.14%	Oregon Coastal
Willamette River Hatchery	1.32%	1.94%	3.82%	1.78%	NA
Nooksack Fall	0.40%	1.83%	2.44%	1.84%	NA
Mid-Columbia Brights	1.29%	1.41%	3.12%	1.35%	Not Represented
Lewis River Wild	0.68%	1.41%	12.68%	5.58%	Lewis River
Washington Coastal Wild	0.40%	1.19%	2.37%	1.31%	Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall
Puget Sound Natural	0.25%	1.09%	4.23%	2.17%	Green, Lake Washington
WA Coastal Hatchery	0.41%	1.01%	2.26%	1.28%	NA
Columbia Upriver Summer	0.92%	0.71%	3.09%	1.40%	Columbia Upriver Summer
Snake River Fall	1.72%	0.69%	21.52%	14.03%	Not Represented
PS Yearling	0.18%	0.27%	1.03%	0.71%	NA
Fraser Early	0.20%	0.19%	0.40%	0.10%	Upper Fraser Middle Fraser Thompson
Alaska South SE	0.04%	0.08%	0.70%	0.26%	King Salmon Andrew Creek Blossom Keta Unuk Chickamin
Lower GS Hatchery	0.02%	0.04%	0.13%	0.07%	NA
WCVI Hatchery	0.01%	0.03%	0.03%	0.01%	NA
Lower Georgia Strait	0.01%	0.02%	0.14%	0.08%	Lower Georgia Strait
WCVI Wild	0.00%	0.01%	0.03%	0.01%	WCVI
Skagit Summer/Fall	0.00%	0.00%	0.04%	0.01%	Skagit Summer/Fall
Snohomish Summer/Fall	0.00%	0.00%	0.04%	0.01%	Snohomish
Nooksack Spring	0.00%	0.00%	0.00%	0.00%	Not Represented
Upper Georgia Strait	0.00%	0.00%	0.00%	0.00%	Upper Georgia Strait
North/Central BC	0.00%	0.00%	0.00%	0.00%	Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet
Stillaguamish Summer/Fall	0.00%	0.00%	0.00%	0.00%	Stillaguamish

Appendix G Incidental mortality rates applied in the CTC model. Rates in original model were applied to all years. In the current model, rates in some fisheries vary in accordance to changes in management regulations.

		Rates in original Model			Rates applied in Model CLB1007			
Fishery Number	Fishery	Sublegal Rate	Legal Rate	Dropoff	Sublegal Rate	Legal Rate	Dropoff	Applicable Years
1	Alaska T	0.3	0.3	0	0.255	0.211	0.008	All
2	North T	0.3	0.3	0	0.255	0.211	0.017	1979-1995
2	North T				0.220	0.185	0.017	1996-2006
3	Centr T	0.3	0.3	0	0.255	0.211	0.017	1979-1995
3	Centr T				0.220	0.185	0.017	1996-2006
4	WCVI T	0.3	0.3	0	0.255	0.211	0.017	1979-1997
4	WCVI T				0.220	0.185	0.017	1998-2006
5	WA/OR T	0.3	0.3	0	0.255	0.211	0.017	1979-1983
5	WA/OR T				0.220	0.185	0.017	1984-2006
6	Geo St T	0.3	0.3	0	0.255	0.211	0.017	1979-1985,1987
6	Geo St T				0.220	0.185	0.017	1986,1988-2006
7	Alaska N	0.9	0.9	0	0.9	0.9	0	All
8	North N	0.9	0.9	0	0.9	0.9	0	All
9	Centr N	0.9	0.9	0	0.9	0.9	0	All
10	WCVI N	0.9	0.9	0	0.9	0.9	0	All
11	J De F N	0.9	0.9	0	0.9	0.9	0	All
12	PgtNth N	0.9	0.9	0	0.9	0.9	0	All
13	PgtSth N	0.9	0.9	0	0.9	0.9	0	All
14	WashCst N	0.9	0.9	0	0.9	0.9	0	All
15	Col R N	0.9	0.9	0	0.9	0.9	0	All
16	JohnSt N	0.9	0.9	0	0.9	0.9	0	All
17	Fraser N	0.9	0.9	0	0.9	0.9	0	All
18	Alaska S	0.3	0.3	0	0.123	0.123	0.036	All
19	Nor/Cen S	0.3	0.3	0	0.123	0.123	0.036	All
20	WCVI S	0.3	0.3	0	0.123	0.123	0.069	All
21	WashOcn S	0.3	0.3	0	0.123	0.123	0.069	All
22	PgtNth S	0.3	0.3	0	0.123	0.123	0.145	All
23	PgtSth S	0.3	0.3	0	0.123	0.123	0.145	All
24	Geo St S	0.3	0.3	0	0.322	0.322	0.069	1979-1981
24	Geo St S				0.123	0.123	0.069	1982-2006
25	Col R S	0.3	0.3	0	0.123	0.123	0.069	All

Appendix H Time series of abundance indices from 1979 to 2011 for SEAK, NBC, and WCVI AABM fisheries as estimated by CTC Chinook Model calibration CLB1106.

This time series is NOT the first postseason AI and is for trend analysis only (Figures 3.10-3.12). For evaluation of overage and underage, use the first postseason AI in Table 3-3 instead. (Source 1106PABD).

Year	SEAK	NBC	WCVI
1979	0.96	1.02	1.10
1980	1.02	0.97	0.96
1981	0.92	0.94	0.93
1982	1.11	1.06	1.01
1983	1.27	1.22	0.94
1984	1.45	1.38	1.00
1985	1.33	1.31	0.98
1986	1.50	1.46	1.03
1987	1.74	1.73	1.19
1988	2.12	1.84	1.14
1989	1.85	1.67	0.99
1990	1.87	1.62	0.90
1991	1.78	1.51	0.76
1992	1.66	1.40	0.79
1993	1.66	1.41	0.70
1994	1.57	1.24	0.53
1995	1.05	0.97	0.42
1996	0.93	0.92	0.50
1997	1.23	1.10	0.59
1998	1.18	0.99	0.57
1999	1.08	0.94	0.51
2000	0.96	0.93	0.52
2001	1.15	1.19	0.80
2002	1.72	1.67	1.16
2003	2.17	1.88	1.23
2004	2.02	1.77	1.02
2005	1.79	1.52	0.83
2006	1.50	1.22	0.65
2007	1.14	0.91	0.53
2008	0.88	0.79	0.56
2009	1.11	1.01	0.63
2010	1.31	1.23	0.95
2011	1.69	1.38	1.15

Appendix I Abundance indices in total and by model stock for AABM fisheries, from Calibration 1106.

LIST OF APPENDIX I TABLES

PAGE

Table I.1. Abundance indices (AIs) for the Southeast Alaska troll fishery by model stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.....248

Table I.2. Abundance indices (AIs) for the Northern BC troll fishery by stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.....250

Table I.3. Abundance indices (AIs) for the WCVI troll fishery by stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.....252

Table I.1. Abundance indices (AIs) for the Southeast Alaska troll fishery by model stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

Year	Alaska South SE	North / Centr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St. Upper	Georgia St. Lwr Nat	Georgia St. Lwr Hat	Nooksack Fall	Pgt Sd Fing	Pgt Sd NatF	Pgt Sd Year	Nooksack Spring	Skagit Wild	AI Total
1979	0.03	0.12	0.06	0.00	0.05	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96
1980	0.03	0.13	0.04	0.00	0.10	0.15	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02
1981	0.04	0.13	0.04	0.00	0.08	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
1982	0.05	0.14	0.04	0.00	0.19	0.20	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11
1983	0.06	0.16	0.04	0.00	0.29	0.14	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27
1984	0.06	0.19	0.05	0.00	0.27	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45
1985	0.06	0.20	0.07	0.00	0.15	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33
1986	0.07	0.22	0.07	0.00	0.12	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
1987	0.07	0.23	0.07	0.00	0.09	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74
1988	0.06	0.24	0.07	0.00	0.21	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12
1989	0.04	0.26	0.06	0.00	0.31	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85
1990	0.03	0.26	0.06	0.00	0.47	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.87
1991	0.03	0.27	0.06	0.00	0.58	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78
1992	0.03	0.26	0.06	0.00	0.54	0.13	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
1993	0.04	0.24	0.06	0.00	0.51	0.13	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
1994	0.03	0.22	0.07	0.00	0.42	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57
1995	0.03	0.23	0.07	0.00	0.15	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05
1996	0.03	0.23	0.08	0.00	0.05	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
1997	0.03	0.23	0.09	0.00	0.18	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23
1998	0.04	0.23	0.08	0.00	0.27	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18
1999	0.04	0.24	0.07	0.00	0.13	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08
2000	0.05	0.25	0.06	0.00	0.05	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96
2001	0.05	0.25	0.08	0.00	0.07	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.15
2002	0.04	0.25	0.10	0.00	0.23	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72
2003	0.04	0.24	0.10	0.00	0.36	0.04	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17
2004	0.04	0.25	0.09	0.00	0.36	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.02
2005	0.04	0.24	0.09	0.00	0.26	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79
2006	0.05	0.22	0.09	0.00	0.23	0.03	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
2007	0.05	0.21	0.08	0.00	0.23	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
2008	0.03	0.18	0.08	0.00	0.12	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
2009	0.04	0.18	0.08	0.00	0.12	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11
2010	0.05	0.18	0.09	0.00	0.12	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31
2011	0.06	0.19	0.10	0.01	0.17	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.69
Average	0.04	0.21	0.07	0.00	0.23	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42

-continued-

Table I.1. Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiver Brights	Spring Creek Hat	Lwr Bonneville Hat	Fall Cowlitz Hat	Lewis R Wild	Willamette R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.00	0.03	0.18	0.00	0.00	0.03	0.02	0.02	0.00	0.04	0.23	0.03	0.00	0.00	0.96
1980	0.00	0.00	0.03	0.14	0.00	0.00	0.03	0.02	0.03	0.00	0.04	0.17	0.04	0.00	0.00	1.02
1981	0.00	0.00	0.02	0.10	0.00	0.00	0.03	0.02	0.03	0.01	0.03	0.16	0.04	0.00	0.01	0.92
1982	0.00	0.00	0.02	0.06	0.00	0.00	0.03	0.01	0.03	0.00	0.02	0.20	0.03	0.00	0.01	1.11
1983	0.00	0.00	0.02	0.09	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.26	0.03	0.00	0.02	1.27
1984	0.00	0.00	0.02	0.20	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.36	0.04	0.00	0.02	1.45
1985	0.00	0.00	0.02	0.24	0.00	0.00	0.03	0.01	0.03	0.00	0.02	0.33	0.04	0.00	0.01	1.33
1986	0.00	0.00	0.02	0.34	0.00	0.00	0.03	0.01	0.04	0.00	0.03	0.36	0.05	0.00	0.02	1.50
1987	0.00	0.00	0.04	0.48	0.00	0.00	0.03	0.02	0.05	0.01	0.03	0.40	0.06	0.00	0.07	1.74
1988	0.00	0.00	0.05	0.51	0.00	0.00	0.14	0.03	0.06	0.00	0.03	0.38	0.07	0.00	0.14	2.12
1989	0.00	0.00	0.06	0.32	0.00	0.00	0.05	0.04	0.06	0.00	0.03	0.30	0.08	0.00	0.12	1.85
1990	0.00	0.00	0.05	0.24	0.00	0.00	0.02	0.02	0.07	0.00	0.02	0.31	0.07	0.00	0.08	1.87
1991	0.00	0.00	0.05	0.12	0.00	0.00	0.01	0.01	0.05	0.00	0.02	0.29	0.06	0.00	0.05	1.78
1992	0.00	0.00	0.05	0.10	0.00	0.00	0.02	0.01	0.03	0.00	0.02	0.25	0.05	0.00	0.04	1.66
1993	0.00	0.00	0.05	0.18	0.00	0.00	0.01	0.01	0.03	0.00	0.02	0.24	0.05	0.00	0.05	1.66
1994	0.00	0.00	0.05	0.21	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.29	0.05	0.00	0.05	1.57
1995	0.00	0.00	0.04	0.12	0.00	0.00	0.01	0.01	0.02	0.00	0.01	0.21	0.04	0.00	0.04	1.05
1996	0.00	0.00	0.04	0.13	0.00	0.00	0.02	0.01	0.02	0.00	0.02	0.17	0.04	0.00	0.05	0.93
1997	0.00	0.00	0.03	0.18	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.20	0.04	0.00	0.09	1.23
1998	0.00	0.00	0.02	0.12	0.00	0.00	0.00	0.01	0.02	0.00	0.02	0.16	0.04	0.00	0.06	1.18
1999	0.00	0.00	0.02	0.21	0.00	0.00	0.01	0.00	0.02	0.00	0.02	0.15	0.03	0.00	0.06	1.08
2000	0.00	0.00	0.02	0.17	0.00	0.00	0.01	0.01	0.03	0.00	0.04	0.13	0.03	0.00	0.05	0.96
2001	0.00	0.00	0.02	0.20	0.00	0.00	0.01	0.01	0.03	0.00	0.07	0.19	0.03	0.00	0.07	1.15
2002	0.00	0.00	0.03	0.30	0.00	0.00	0.02	0.02	0.07	0.00	0.10	0.27	0.03	0.00	0.16	1.72
2003	0.00	0.00	0.03	0.45	0.00	0.00	0.05	0.02	0.05	0.00	0.10	0.36	0.04	0.00	0.22	2.17
2004	0.00	0.00	0.04	0.37	0.00	0.00	0.03	0.02	0.06	0.00	0.09	0.38	0.04	0.00	0.16	2.02
2005	0.00	0.00	0.04	0.37	0.00	0.00	0.03	0.01	0.02	0.00	0.09	0.32	0.04	0.00	0.13	1.79
2006	0.00	0.00	0.04	0.26	0.00	0.00	0.02	0.02	0.03	0.00	0.08	0.19	0.04	0.00	0.11	1.50
2007	0.00	0.00	0.03	0.11	0.00	0.00	0.01	0.00	0.01	0.00	0.07	0.12	0.03	0.00	0.08	1.14
2008	0.00	0.00	0.03	0.1	0.00	0.00	0.00	0.00	0.02	0.00	0.06	0.04	0.03	0.00	0.08	0.88
2009	0.00	0.00	0.03	0.26	0.00	0.00	0.02	0.00	0.02	0.00	0.07	0.08	0.03	0.00	0.10	1.11
2010	0.00	0.00	0.03	0.32	0.00	0.00	0.02	0.01	0.07	0.00	0.09	0.14	0.03	0.00	0.10	1.31
2011	0.00	0.00	0.03	0.48	0.00	0.00	0.04	0.01	0.04	0.00	0.12	0.17	0.03	0.01	0.16	1.69
Average	0.00	0.00	0.03	0.23	0.00	0.00	0.03	0.01	0.04	0.00	0.05	0.24	0.04	0.00	0.07	1.42

Table I.2. Abundance indices (AIs) for the Northern BC troll fishery by stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

Year	Alaska SE	South North/Cen tr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St. Upper	Georgia St. Lwr Nat	Georgia St. Lwr Hat	Nooksack Fall	Pgt Sd Fing	Pgt Sd NatF	Pgt Sd Year	Nooksack Spring	Skagit Wild	AI Total
1979	0.00	0.08	0.07	0.01	0.04	0.05	0.06	0.02	0.02	0.01	0.00	0.00	0.00	0.02	0.01	1.02
1980	0.00	0.08	0.06	0.01	0.05	0.07	0.05	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.97
1981	0.00	0.09	0.05	0.01	0.06	0.08	0.06	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.94
1982	0.00	0.10	0.04	0.01	0.12	0.10	0.05	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.06
1983	0.00	0.11	0.05	0.01	0.16	0.08	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	1.22
1984	0.00	0.12	0.06	0.02	0.14	0.05	0.05	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.38
1985	0.00	0.13	0.07	0.01	0.08	0.03	0.06	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.01	1.31
1986	0.00	0.14	0.09	0.01	0.06	0.02	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	1.46
1987	0.00	0.15	0.09	0.01	0.07	0.02	0.07	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.73
1988	0.00	0.16	0.08	0.01	0.12	0.03	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.84
1989	0.00	0.17	0.08	0.01	0.19	0.04	0.06	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.67
1990	0.00	0.17	0.08	0.01	0.27	0.06	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.62
1991	0.00	0.17	0.08	0.01	0.31	0.07	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.51
1992	0.00	0.17	0.07	0.01	0.30	0.07	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.40
1993	0.00	0.16	0.07	0.01	0.28	0.07	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.41
1994	0.00	0.16	0.08	0.00	0.20	0.05	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.24
1995	0.00	0.15	0.08	0.00	0.07	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.97
1996	0.00	0.15	0.09	0.01	0.04	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.92
1997	0.00	0.16	0.11	0.01	0.11	0.03	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.10
1998	0.00	0.16	0.10	0.01	0.13	0.03	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.99
1999	0.00	0.16	0.09	0.01	0.07	0.01	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.94
2000	0.00	0.16	0.08	0.01	0.03	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.93
2001	0.00	0.17	0.09	0.01	0.06	0.01	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.19
2002	0.00	0.17	0.11	0.01	0.14	0.02	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.67
2003	0.00	0.17	0.12	0.01	0.19	0.02	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.88
2004	0.00	0.18	0.11	0.01	0.20	0.02	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	1.77
2005	0.00	0.17	0.10	0.01	0.14	0.01	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.52
2006	0.00	0.16	0.11	0.01	0.14	0.02	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	1.22
2007	0.00	0.15	0.10	0.00	0.11	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.91
2008	0.00	0.13	0.09	0.00	0.07	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.79
2009	0.00	0.12	0.10	0.01	0.06	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.01
2010	0.00	0.13	0.10	0.01	0.08	0.01	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.23
2011	0.00	0.13	0.12	0.01	0.08	0.01	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.38
Average	0.00	0.14	0.09	0.01	0.13	0.04	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	1.28

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Table 1.2. Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiver Brights	Spring Creek Hat	Lwr Bonnevill e Hat	Fall Cowlitz Hat	Lewis R Wild	Willamett e R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.01	0.04	0.12	0.00	0.00	0.02	0.01	0.06	0.01	0.02	0.30	0.05	0.00	0.00	1.02
1980	0.00	0.01	0.04	0.08	0.00	0.00	0.02	0.01	0.06	0.01	0.02	0.25	0.06	0.00	0.00	0.97
1981	0.00	0.00	0.04	0.06	0.00	0.00	0.02	0.01	0.07	0.01	0.02	0.24	0.06	0.00	0.01	0.94
1982	0.00	0.00	0.03	0.04	0.00	0.00	0.02	0.01	0.09	0.01	0.02	0.31	0.06	0.00	0.01	1.06
1983	0.00	0.00	0.03	0.07	0.00	0.00	0.02	0.01	0.09	0.01	0.02	0.40	0.06	0.00	0.02	1.22
1984	0.00	0.00	0.03	0.14	0.00	0.00	0.02	0.01	0.09	0.01	0.02	0.50	0.06	0.00	0.01	1.38
1985	0.00	0.00	0.03	0.17	0.00	0.00	0.02	0.00	0.08	0.00	0.02	0.46	0.06	0.00	0.01	1.31
1986	0.00	0.00	0.05	0.25	0.00	0.00	0.02	0.01	0.10	0.01	0.02	0.49	0.08	0.00	0.02	1.46
1987	0.00	0.00	0.07	0.33	0.00	0.00	0.03	0.02	0.13	0.01	0.02	0.53	0.10	0.00	0.05	1.73
1988	0.00	0.00	0.09	0.32	0.00	0.00	0.08	0.02	0.14	0.01	0.02	0.47	0.12	0.00	0.09	1.84
1989	0.00	0.00	0.09	0.20	0.00	0.00	0.02	0.01	0.14	0.01	0.02	0.40	0.12	0.00	0.07	1.67
1990	0.00	0.00	0.08	0.15	0.00	0.00	0.01	0.01	0.14	0.00	0.01	0.39	0.11	0.00	0.05	1.62
1991	0.00	0.00	0.08	0.08	0.00	0.00	0.01	0.01	0.10	0.00	0.01	0.37	0.10	0.00	0.03	1.51
1992	0.00	0.00	0.08	0.07	0.00	0.00	0.01	0.01	0.07	0.01	0.01	0.33	0.08	0.00	0.03	1.40
1993	0.00	0.00	0.08	0.12	0.00	0.00	0.01	0.00	0.06	0.00	0.01	0.36	0.08	0.00	0.03	1.41
1994	0.00	0.00	0.07	0.13	0.00	0.00	0.00	0.01	0.05	0.00	0.01	0.33	0.07	0.00	0.03	1.24
1995	0.00	0.00	0.07	0.08	0.00	0.00	0.01	0.01	0.04	0.00	0.01	0.29	0.07	0.00	0.03	0.97
1996	0.00	0.00	0.06	0.09	0.00	0.00	0.01	0.00	0.04	0.00	0.01	0.23	0.07	0.00	0.04	0.92
1997	0.00	0.00	0.05	0.12	0.00	0.00	0.01	0.00	0.05	0.00	0.01	0.25	0.07	0.00	0.06	1.10
1998	0.00	0.00	0.03	0.08	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.22	0.05	0.00	0.04	0.99
1999	0.00	0.00	0.03	0.14	0.00	0.00	0.01	0.00	0.06	0.00	0.02	0.19	0.04	0.00	0.04	0.94
2000	0.00	0.00	0.03	0.11	0.00	0.00	0.00	0.00	0.07	0.00	0.04	0.22	0.04	0.00	0.03	0.93
2001	0.00	0.00	0.03	0.14	0.00	0.00	0.01	0.01	0.11	0.00	0.05	0.30	0.04	0.00	0.05	1.19
2002	0.00	0.00	0.04	0.22	0.00	0.00	0.02	0.01	0.15	0.00	0.06	0.44	0.05	0.00	0.11	1.67
2003	0.00	0.00	0.05	0.29	0.00	0.00	0.03	0.01	0.12	0.01	0.06	0.50	0.06	0.00	0.14	1.88
2004	0.00	0.00	0.06	0.24	0.00	0.00	0.01	0.01	0.10	0.01	0.06	0.48	0.07	0.00	0.10	1.77
2005	0.00	0.00	0.06	0.24	0.00	0.00	0.02	0.01	0.06	0.00	0.05	0.39	0.07	0.00	0.08	1.52
2006	0.00	0.00	0.06	0.15	0.00	0.00	0.01	0.00	0.05	0.01	0.05	0.22	0.06	0.00	0.07	1.22
2007	0.00	0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.03	0.00	0.05	0.13	0.05	0.00	0.05	0.91
2008	0.00	0.00	0.04	0.10	0.00	0.00	0.00	0.00	0.04	0.00	0.05	0.07	0.04	0.00	0.06	0.79
2009	0.00	0.00	0.04	0.18	0.00	0.00	0.01	0.00	0.09	0.00	0.06	0.14	0.04	0.00	0.07	1.01
2010	0.00	0.00	0.05	0.22	0.00	0.00	0.01	0.00	0.13	0.00	0.07	0.21	0.05	0.01	0.07	1.23
2011	0.00	0.00	0.05	0.32	0.00	0.00	0.03	0.01	0.08	0.00	0.08	0.21	0.05	0.01	0.11	1.38
Average	0.00	0.00	0.05	0.15	0.00	0.00	0.02	0.01	0.08	0.00	0.03	0.32	0.07	0.00	0.05	1.28

Table I.3. Abundance indices (AIs) for the WCVI troll fishery by stock and year (stock groups 1-15), from CLB 1106. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

Year	Alaska South SE	North/Centr	Fraser Early	Fraser Late	WCVI Hatchery	WCVI Natural	Georgia St. Upper	Georgia St. Lwr Nat	Georgia St. Lwr Hat	Nooksack Fall	Pgt Sd Fing	Pgt Sd NatF	Pgt Sd Your	Nooksack Spring	Skagit Wild	AI Total
1979	0.00	0.00	0.01	0.27	0.01	0.02	0.00	0.01	0.01	0.08	0.05	0.03	0.03	0.00	0.02	1.10
1980	0.00	0.00	0.01	0.20	0.02	0.02	0.00	0.01	0.01	0.09	0.05	0.02	0.03	0.00	0.02	0.96
1981	0.00	0.00	0.00	0.23	0.02	0.03	0.00	0.00	0.01	0.09	0.05	0.02	0.03	0.00	0.02	0.93
1982	0.00	0.00	0.00	0.25	0.04	0.03	0.00	0.00	0.01	0.09	0.05	0.02	0.02	0.00	0.01	1.01
1983	0.00	0.00	0.01	0.22	0.05	0.02	0.00	0.00	0.00	0.10	0.06	0.03	0.02	0.00	0.01	0.94
1984	0.00	0.00	0.01	0.25	0.04	0.01	0.00	0.00	0.01	0.12	0.06	0.02	0.02	0.00	0.02	1.00
1985	0.00	0.00	0.01	0.28	0.03	0.01	0.00	0.00	0.01	0.11	0.06	0.02	0.02	0.00	0.01	0.98
1986	0.00	0.00	0.01	0.22	0.02	0.01	0.00	0.00	0.00	0.09	0.06	0.02	0.01	0.00	0.01	1.03
1987	0.00	0.00	0.01	0.11	0.02	0.01	0.00	0.00	0.00	0.06	0.08	0.03	0.01	0.00	0.01	1.19
1988	0.00	0.00	0.01	0.07	0.04	0.01	0.00	0.00	0.00	0.05	0.09	0.03	0.01	0.00	0.01	1.14
1989	0.00	0.00	0.01	0.18	0.06	0.01	0.00	0.00	0.00	0.07	0.10	0.03	0.02	0.00	0.01	0.99
1990	0.00	0.00	0.01	0.21	0.08	0.02	0.00	0.00	0.00	0.07	0.10	0.03	0.01	0.00	0.01	0.90
1991	0.00	0.00	0.01	0.16	0.09	0.02	0.00	0.00	0.00	0.05	0.07	0.03	0.01	0.00	0.00	0.76
1992	0.00	0.00	0.01	0.21	0.09	0.02	0.00	0.00	0.00	0.03	0.06	0.02	0.01	0.00	0.00	0.79
1993	0.00	0.00	0.01	0.17	0.08	0.02	0.00	0.00	0.00	0.03	0.06	0.02	0.01	0.00	0.00	0.70
1994	0.00	0.00	0.01	0.10	0.05	0.01	0.00	0.00	0.00	0.02	0.07	0.02	0.01	0.00	0.00	0.53
1995	0.00	0.00	0.01	0.05	0.01	0.00	0.00	0.00	0.00	0.02	0.08	0.02	0.01	0.00	0.00	0.42
1996	0.00	0.00	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.02	0.07	0.02	0.01	0.00	0.00	0.50
1997	0.00	0.00	0.01	0.16	0.04	0.01	0.00	0.00	0.00	0.03	0.07	0.02	0.01	0.00	0.01	0.59
1998	0.00	0.00	0.01	0.18	0.04	0.01	0.00	0.00	0.00	0.02	0.07	0.02	0.01	0.00	0.00	0.57
1999	0.00	0.00	0.01	0.11	0.01	0.00	0.00	0.00	0.00	0.03	0.08	0.02	0.01	0.00	0.01	0.51
2000	0.00	0.00	0.01	0.12	0.01	0.00	0.00	0.00	0.00	0.03	0.08	0.02	0.01	0.00	0.01	0.52
2001	0.00	0.00	0.01	0.11	0.02	0.00	0.00	0.00	0.00	0.04	0.08	0.03	0.01	0.00	0.01	0.80
2002	0.00	0.00	0.01	0.20	0.05	0.01	0.00	0.00	0.00	0.04	0.09	0.02	0.01	0.00	0.01	1.16
2003	0.00	0.00	0.01	0.24	0.06	0.01	0.00	0.00	0.00	0.02	0.09	0.02	0.01	0.00	0.01	1.23
2004	0.00	0.00	0.01	0.15	0.05	0.00	0.00	0.00	0.00	0.02	0.09	0.02	0.02	0.00	0.01	1.02
2005	0.00	0.00	0.01	0.09	0.04	0.00	0.00	0.00	0.00	0.02	0.10	0.02	0.02	0.00	0.01	0.83
2006	0.00	0.00	0.01	0.10	0.04	0.01	0.00	0.00	0.00	0.02	0.11	0.02	0.02	0.00	0.01	0.65
2007	0.00	0.00	0.01	0.08	0.03	0.00	0.00	0.00	0.00	0.02	0.11	0.02	0.03	0.00	0.01	0.53
2008	0.00	0.00	0.01	0.08	0.02	0.00	0.00	0.00	0.00	0.02	0.09	0.02	0.02	0.00	0.01	0.56
2009	0.00	0.00	0.01	0.09	0.02	0.00	0.00	0.00	0.00	0.02	0.09	0.01	0.02	0.00	0.01	0.63
2010	0.00	0.00	0.01	0.19	0.02	0.00	0.00	0.00	0.00	0.02	0.09	0.01	0.02	0.00	0.01	0.95
2011	0.00	0.00	0.01	0.29	0.02	0.00	0.00	0.00	0.00	0.03	0.10	0.01	0.02	0.00	0.01	1.15
Average	0.00	0.00	0.01	0.17	0.04	0.01	0.00	0.00	0.00	0.05	0.08	0.02	0.01	0.00	0.01	0.84

-continued-

Table I.3.Page 2 of 2 (stock groups 16-30).

Year	Stillaguamish Wild	Snohomish Wild	WA Coastal Hat	UpRiver Brights	Spring Creek Hat	Lwr Bonnevill e Hat	Fall Cowlitz Hat	Lewis R Wild	Willamett e R Hat	Spr Cowlitz Hat	Col R Summer	Oregon Coast	WA Coastal Wild	Lyons Ferry	Mid Col R Brights	AI Total
1979	0.00	0.01	0.01	0.05	0.17	0.13	0.08	0.01	0.01	0.01	0.02	0.04	0.01	0.00	0.00	1.10
1980	0.00	0.01	0.01	0.04	0.14	0.10	0.08	0.01	0.01	0.02	0.02	0.04	0.01	0.00	0.00	0.96
1981	0.00	0.01	0.01	0.03	0.12	0.09	0.08	0.01	0.02	0.01	0.02	0.04	0.01	0.00	0.00	0.93
1982	0.00	0.01	0.01	0.03	0.13	0.10	0.09	0.01	0.02	0.01	0.01	0.05	0.01	0.00	0.01	1.01
1983	0.00	0.01	0.01	0.05	0.04	0.09	0.08	0.01	0.02	0.01	0.02	0.06	0.01	0.00	0.01	0.94
1984	0.00	0.01	0.01	0.08	0.05	0.08	0.07	0.01	0.02	0.01	0.02	0.07	0.01	0.00	0.00	1.00
1985	0.00	0.01	0.01	0.10	0.03	0.07	0.08	0.01	0.02	0.01	0.01	0.07	0.01	0.00	0.00	0.98
1986	0.00	0.00	0.01	0.15	0.02	0.12	0.09	0.01	0.02	0.01	0.02	0.07	0.02	0.00	0.01	1.03
1987	0.00	0.00	0.02	0.18	0.01	0.25	0.18	0.02	0.03	0.01	0.02	0.07	0.02	0.00	0.04	1.19
1988	0.00	0.00	0.02	0.14	0.03	0.12	0.27	0.02	0.03	0.01	0.02	0.07	0.03	0.00	0.04	1.14
1989	0.00	0.00	0.02	0.09	0.04	0.05	0.13	0.01	0.03	0.01	0.01	0.06	0.03	0.00	0.03	0.99
1990	0.00	0.00	0.02	0.06	0.04	0.03	0.06	0.01	0.03	0.01	0.01	0.05	0.02	0.00	0.02	0.90
1991	0.00	0.00	0.02	0.04	0.05	0.05	0.04	0.01	0.02	0.01	0.01	0.05	0.02	0.00	0.01	0.76
1992	0.00	0.00	0.02	0.05	0.04	0.06	0.05	0.01	0.01	0.01	0.01	0.05	0.02	0.00	0.01	0.79
1993	0.00	0.00	0.02	0.06	0.02	0.03	0.04	0.00	0.01	0.00	0.01	0.05	0.02	0.00	0.02	0.70
1994	0.00	0.00	0.01	0.05	0.02	0.02	0.02	0.01	0.01	0.00	0.01	0.05	0.01	0.00	0.01	0.53
1995	0.00	0.00	0.01	0.04	0.02	0.02	0.03	0.00	0.01	0.00	0.01	0.04	0.01	0.00	0.01	0.42
1996	0.00	0.00	0.01	0.06	0.03	0.02	0.04	0.00	0.01	0.00	0.01	0.04	0.01	0.00	0.02	0.50
1997	0.00	0.00	0.01	0.05	0.02	0.02	0.03	0.00	0.01	0.00	0.01	0.03	0.01	0.00	0.03	0.59
1998	0.00	0.00	0.01	0.05	0.02	0.02	0.02	0.00	0.01	0.00	0.01	0.03	0.01	0.00	0.02	0.57
1999	0.00	0.00	0.01	0.07	0.03	0.01	0.02	0.00	0.01	0.00	0.01	0.03	0.01	0.00	0.02	0.51
2000	0.00	0.00	0.01	0.06	0.02	0.02	0.02	0.01	0.01	0.00	0.03	0.03	0.01	0.00	0.02	0.52
2001	0.00	0.00	0.01	0.09	0.10	0.06	0.04	0.01	0.03	0.00	0.04	0.05	0.01	0.01	0.04	0.80
2002	0.00	0.00	0.01	0.13	0.18	0.07	0.07	0.01	0.03	0.01	0.06	0.07	0.01	0.01	0.06	1.16
2003	0.00	0.00	0.01	0.13	0.18	0.06	0.11	0.01	0.03	0.01	0.05	0.08	0.01	0.01	0.06	1.23
2004	0.00	0.00	0.01	0.12	0.17	0.04	0.08	0.01	0.02	0.01	0.05	0.07	0.01	0.01	0.04	1.02
2005	0.00	0.00	0.01	0.11	0.10	0.02	0.08	0.01	0.01	0.01	0.05	0.05	0.01	0.01	0.04	0.83
2006	0.00	0.00	0.01	0.07	0.03	0.01	0.04	0.00	0.01	0.01	0.05	0.03	0.01	0.01	0.03	0.65
2007	0.00	0.00	0.01	0.04	0.01	0.01	0.02	0.00	0.01	0.00	0.04	0.02	0.01	0.01	0.03	0.53
2008	0.00	0.00	0.01	0.07	0.06	0.02	0.02	0.00	0.01	0.00	0.04	0.01	0.01	0.01	0.03	0.56
2009	0.00	0.00	0.01	0.10	0.05	0.01	0.04	0.00	0.02	0.00	0.04	0.02	0.01	0.01	0.03	0.63
2010	0.00	0.00	0.01	0.14	0.13	0.03	0.07	0.00	0.02	0.00	0.06	0.03	0.01	0.02	0.04	0.95
2011	0.00	0.00	0.01	0.15	0.12	0.05	0.10	0.01	0.02	0.00	0.07	0.03	0.01	0.02	0.05	1.15
Average	0.00	0.00	0.01	0.08	0.07	0.06	0.07	0.01	0.02	0.01	0.03	0.05	0.01	0.00	0.02	0.84

Appendix J Fishery exploitation rate indices by stock, age and fishery, based on CWT data, 1975–2009.

LIST OF APPENDIX J TABLES

		Page
Table J.1.	Alaska troll Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.	255
Table J.2.	Alaska troll Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.	256
Table J.3.	Landed catch exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.	257
Table J.4.	NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.	258
Table J.5.	Total mortality exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.	259
Table J.6.	NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.	260
Table J.7.	Landed catch exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.	261
Table J.8.	WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.	262
Table J.9.	Total mortality exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.	263
Table J.10.	WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.	264

Table J.1. Alaska troll Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

YEAR	SPFI	WIN/SPR	JUNE IN	JUNE OUT	JULY IN	JULY OUT	FALL
1979	0.8775	1.1583	0.6235	1.0743	0.5131	0.8340	0.8340
1980	1.1531	0.6384	1.2276	0.9199	1.0291	1.3757	1.3757
1981	1.1004	1.2108	0.6346	1.0998	1.2113	1.1397	1.1397
1982	0.8690	0.9925	1.5143	0.9059	1.2465	0.6506	0.6506
1983	0.9412	0.9855	0.8912	0.6476	1.0870	1.2488	1.2488
1984	0.6760	0.3603	1.5951	0.9735	0.4017	0.5257	0.5257
1985	0.7497	0.4564	1.2487	0.6317	1.0169	0.8392	0.8392
1986	0.5264	0.4409	0.6104	0.1790	0.7776	1.2869	1.2869
1987	0.5525	0.6054	0.8277	0.1920	1.8734	0.6973	0.6973
1988	0.4591	1.4057	0.1981	0.0015	1.6480	0.6907	0.6907
1989	0.5358	0.8636	0.6567	0.1222	0.7406	0.6067	0.6067
1990	0.7952	0.6820	1.2974	0.1201	1.5729	1.2246	1.2246
1991	0.6445	1.4772	1.3086	0.2188	0.6696	0.7960	0.7960
1992	0.4226	1.0266	0.7409	0.0722	0.2877	0.3984	0.3984
1993	0.4782	0.7571	0.4210	0.0166	0.3456	0.9353	0.9353
1994	0.4446	0.6866	0.1686	0.0377	0.2171	0.6928	0.6928
1995	0.5360	0.4720	0.4624	0.0496	1.2782	0.8341	0.8341
1996	0.4605	0.5433	0.9534	0.0913	0.6759	0.5682	0.5682
1997	0.6617	0.6423	0.8725	0.1435	0.1123	1.5667	1.5667
1998	0.4379	0.8172	0.2218	0.0563	0.5231	1.0109	1.0109
1999	0.6520	0.8024	0.3825	0.1194	0.1561	1.0325	1.0325
2000	0.4697	0.9121	0.1377	0.0839	0.0780	1.5015	1.5015
2001	0.3952	0.5878	0.1737	0.0748	0.1750	0.6643	0.6643
2002	0.5468	0.4333	0.1492	0.0628	0.2069	1.2095	1.2095
2003	0.5229	0.7181	0.1741	0.0707	0.4218	0.9321	0.9321
2004	0.4623	0.8340	0.2627	0.0733	0.3953	0.9856	0.9856
2005	0.5274	0.9410	0.3097	0.1239	0.5735	1.3022	1.3022
2006	0.7003	1.5293	1.1290	0.1298	0.1588	1.4592	1.4592
2007	0.6678	1.2786	1.4672	0.1440	0.2526	1.1923	1.1923
2008	0.4442	0.8474	1.0921	0.0750	0.1171	0.6302	0.6302
2009	0.4712	0.6194	0.3786	0.1224	0.1428	0.8044	0.8044

ER Stock Identifiers:			
Alaska Southeast	Age 4	Age 5	Age 6
Quinsam	Age 4	Age 5	
Robertson Creek	Age 3	Age 4	Age 5
Salmon River Hatchery	Age 4	Age 5	
Columbia Upriver Brights	Age 4	Age 5	
Willamette Spring Hatchery	Age 4	Age 5	

Table J.2. Alaska troll Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

YEAR	SPFI	WIN/SPR	JUNE IN	JUNE OUT	JULY IN	JULY OUT	FALL
1979	0.8626	1.1595	0.5755	1.0711	0.5115	0.8048	0.8048
1980	1.0656	0.6394	1.1497	0.8711	0.8940	1.2170	1.2170
1981	1.0904	1.2105	0.5857	1.1291	1.1301	1.1441	1.1441
1982	0.9815	0.9907	1.6891	0.9287	1.4644	0.8342	0.8342
1983	1.0885	0.9861	1.1161	0.6647	0.9976	1.6938	1.6938
1984	0.7256	0.3592	1.7292	0.9804	0.6154	0.6137	0.6137
1985	0.8761	0.4558	1.2995	0.6167	0.9901	1.0996	1.0996
1986	0.5980	0.4428	0.6981	0.1759	0.8951	1.4962	1.4962
1987	0.6375	0.6066	0.8007	0.1817	2.4637	0.8364	0.8364
1988	0.4810	1.4088	0.2420	0.0070	1.7835	0.7055	0.7055
1989	0.5877	0.8666	0.6817	0.1211	0.8426	0.6596	0.6596
1990	1.0467	0.9068	1.5918	0.1397	1.5518	1.6476	1.6476
1991	0.6928	1.5325	1.2779	0.2081	0.8571	0.8477	0.8477
1992	0.4946	1.0766	0.7303	0.0687	0.3006	0.5683	0.5683
1993	0.5406	0.7959	0.4073	0.0176	0.3472	1.0971	1.0971
1994	0.5461	0.7291	0.2506	0.0381	0.2852	0.9024	0.9024
1995	0.6644	0.5219	0.5527	0.0519	1.3052	1.0435	1.0435
1996	0.5656	0.5955	0.9660	0.0965	0.7154	0.7052	0.7052
1997	0.6715	0.6941	0.8343	0.1434	0.1409	1.5136	1.5136
1998	0.4288	0.8688	0.2348	0.0562	0.4588	0.9514	0.9514
1999	0.7283	0.8686	0.3960	0.1163	0.2115	1.1485	1.1485
2000	0.5042	1.0015	0.1589	0.0908	0.1186	1.5600	1.5600
2001	0.4226	0.6262	0.1725	0.0721	0.2167	0.7001	0.7001
2002	0.5504	0.5001	0.1625	0.0659	0.2299	1.1460	1.1460
2003	0.5193	0.7978	0.1793	0.0721	0.3863	0.8781	0.8781
2004	0.4639	0.9011	0.2631	0.0747	0.3910	0.9453	0.9453
2005	0.5653	1.1150	0.5006	0.1289	0.5339	1.2840	1.2840
2006	0.7198	1.6248	1.2233	0.1308	0.1697	1.4457	1.4457
2007	0.6807	1.3752	1.6280	0.1408	0.2392	1.1698	1.1698
2008	0.4715	0.8813	1.0557	0.0771	0.1513	0.6630	0.6630
2009	0.4970	0.6269	0.3693	0.1150	0.1678	0.8425	0.8425

ER Stock Identifiers:			
Alaska Southeast	Age 4	Age 5	Age 6
Quinsam	Age 4	Age 5	
Robertson Creek	Age 3	Age 4	Age 5
Salmon River Hatchery	Age 4	Age 5	
Columbia Upriver Brights	Age 4	Age 5	
Willamette Spring Hatchery	Age 4	Age 5	

Table J.3. Landed catch exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.

Year	AKS Age 4	QUI Age 3	QUI Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SRH Age 3	SRH Age 4	SRH Age 5	URB Age 3	URB Age 4	URB Age 5	WSH Age 4	Fishery Index
1979		0.5508	0.8691	1.2278	0.8306	0.4805	1.1575			0.4536	1.1907		0.6486	0.8244
1980		0.7948	0.9847	1.1057	0.8522	0.7876		0.9275		1.0839	0.9886	1.2702	1.187	0.9539
1981		1.7733	1.4461	0.751	1.0467	1.7319	1.2869		1		1.1524	1.3124	1.5239	1.2554
1982	1	0.881	0.7001	0.9156	1.2705		0.5557	1.0725		1.4626	0.6683	0.4174	0.6405	0.8593
1983	1.587	1.2612	1.4723	1.0409	0.7065	0.5989	0.5329	1.1765	0.2421	1.811	1.3146		1.2758	0.7998
1984	1.1363	0.2536	0.5071	0.3991	1.3248	2.0131		1.326	1.2823	1.0114	2.1995		0.5009	1.264
1985	0.7802	0.2457	0.5818	0.9123	1.9392		0.3847		1.0546	1.3886	1.7111	1.6799	0.2161	1.1
1986	0.7273	0.9415	0.8476		1.0484		0.1129	1.1648		1.0774	1.3891	1.9838		1.06
1987	0.6136	0.3535	0.6224	0.4896			0.2045	0.8032	1.0367	1.2073	1.7702	2.8922		1.0376
1988	2.0806	0.191	0.7015	0.3334	0.6214			0.6569	0.3356	0.3751	1.0821	2.3607	0.7805	0.6953
1989	0.9498	0.4378	0.4541	0.3597	0.8827	1.0547	0.1349	0.5682	0.9973		1.037	4.216	0.3637	0.9856
1990	1.952	0.3629	0.96	0.314	0.7169	0.5617	0.1755	0.5099	0.9236		1.2462	2.3814	0.3009	0.8054
1991	0.6503	0.4198	0.661	0.3852	0.75	1.1423	0.1386	0.8468	0.9514				0.2727	0.7601
1992	0.1179		1.861	0.2889	0.5797	0.6796	0.1262	0.5424	0.4474				0.0991	0.5905
1993	0.2829			0.178	0.6172	0.8375	0.1335	1.1806	1.1305	0	1.147		0.2047	0.7972
1994	0.0542			0.3267	0.7427	0.8967	0.2177	1.1166	0.9325		0.9348	2.0129	0.1155	0.8676
1995	0				0.4111	0.2616	0.1243	0	0.3956			0.5654	0.1482	0.3037
1996	0			0			0	0	0	0	0		0	0
1997	0	0.3523	0.3985	0.2111	0.3855		0.1448	0.2415	0.2056		0.6772		0.2676	0.2978
1998	0	0	0		0.568		0.0871	1.1422	0.5821	0		1.6501	0	0.5519
1999	0	0.1651	0.1932		0.3403	0.5549	0.1041	0.4056	0.192		1.1939		0	0.347
2000	0	0	0.0623				0.0486	0.5755	0.1567		0	0	0.0135	0.139
2001	0	0	0.0149	0			0.0477	0.3596	0.4155	0	0		0.0206	0.1947
2002	0.4736	0	0.1416	0	0.4649		0.1879	0.6278	0.6969	0.1018	0.1936		0.1847	0.397
2003	0	0	0	0.047	0.0506	0	0.0509	0.6216	0.2515	0	0.7597	0.8798	0.0525	0.2309
2004	0.9055	0	0.0578	0.0897	0.1947	0.409	0.0929	0.5344	0.4392	0	0.746	1.3632	0.1893	0.3895
2005	0.181	0.0739	0.0426	0.0336	0.3206	0.1034	0.1126	0.957	0.4514	0.1185	1.4855	1.058	0.0955	0.424
2006	0.3808	0.0821	0.0664	0.1022	0.2594	0.2683	0.0366	1.0033	0.7263		1.4044	1.5077	0.0472	0.5396
2007	0.0903		0.4454		0.4907	0.5035		0.5952	0.6794				0	0.5378
2008	0.0616	0		0.0658	0.6203	0.1904	0.0519			0.4729			0.0599	0.243
2009	0.4485		0.1053		0.1568		0.0114	0.9709			1.6091		0.0654	0.4823

Stock Identifiers:
AKS = ALASKA SPRING QUI = QUINSAM RBT = ROBERTSON CREEK SRH = SALMON RIVER HATCHERY
URB = COLUMBIA UPRIVER BRIGHT WSH = WILLAMETTE SPRING

Table J.4. NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

YEAR	SPFI	ER Stock Identifiers:			
1979	0.9668	Alaska Southeast	Age 4	Age 5	Age 6
1980	0.8300	Quinsam	Age 4	Age 5	
1981	1.2616	Robertson Creek	Age 3	Age 4	Age 5
1982	0.9417	Salmon River Hatchery	Age 4	Age 5	
1983	0.9540	Columbia Upriver Brights	Age 4	Age 5	
1984	0.9270	Willamette Spring Hatchery	Age 4	Age 5	
1985	0.8959				
1986	0.7852				
1987	0.7999				
1988	0.6735				
1989	0.7011				
1990	0.5919				
1991	0.6500				
1992	0.4587				
1993	0.5181				
1994	0.6331				
1995	0.2733				
1996	0.0000				
1997	0.2291				
1998	0.4435				
1999	0.3058				
2000	0.0864				
2001	0.0789				
2002	0.3049				
2003	0.2128				
2004	0.2843				
2005	0.4079				
2006	0.3967				
2007	0.3850				
2008	0.1921				
2009	0.3987				

Table J.5. Total mortality exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-1982.

Year	AKS Age 4	QUI Age 3	QUI Age 4	RBT Age 3	RBT Age 4	RBT Age 5	SRH Age 3	SRH Age 4	SRH Age 5	URB Age 3	URB Age 4	URB Age 5	WSH Age 4	Fishery Index
1979		0.5843	0.8415	1.2523	0.8392	0.477	1.1622			0.5779	1.2001		0.6151	0.8374
1980		0.799	0.9875	1.0248	0.8494	0.7818		0.9323		1.0764	0.9922	1.2667	1.1115	0.9467
1981		1.7471	1.4594	0.7547	1.0419	1.7411	1.2537		1		1.1576	1.3242	1.5299	1.2547
1982	1	0.8696	0.7117	0.9682	1.2694		0.5841	1.0677		1.3457	0.6501	0.4091	0.7435	0.8668
1983	1.4141	1.1306	1.4546	0.9161	0.6939	0.6132	0.6213	1.1852	0.2385	1.5755	1.2787		1.0925	0.7919
1984	0.9607	0.2405	0.5079	0.4455	1.2947	2.0366		1.3249	1.2834	0.928	2.1752		0.4294	1.2218
1985	0.6817	0.2441	0.572	0.9598	1.8998		0.3972		1.0553	1.1977	1.6945	1.6466	0.1804	1.0548
1986	0.6248	0.8633	0.8207		1.0343		0.1492	1.1404		0.9733	1.3818	1.9445		1.0135
1987	0.5778	0.4376	0.655	0.4787			0.2346	0.7941	1.0595	1.5463	1.8063	2.9182		1.0382
1988	1.923	0.2795	0.7166	0.3354	0.6256			0.6679	0.3308	0.7664	1.1164	2.3919	0.7812	0.7083
1989	0.8404	0.4596	0.4711	0.3887	0.8745	1.0651	0.2706	0.5973	1.0087		1.1026	4.2223	0.3309	0.976
1990	2.0075	0.4917	0.9876	0.388	0.7314	0.5757	0.3069	0.5375	0.9427		1.2673	2.4379	0.2872	0.8215
1991	0.634	0.525	0.6691	0.4666	0.7542	1.162	0.2925	0.8587	0.9653				0.2699	0.7698
1992	0.1825		1.933	0.3926	0.5949	0.7028	0.1781	0.5542	0.4593				0.105	0.6031
1993	0.219			0.3252	0.6316	0.8601	0.279	1.1917	1.149	0.2532	1.1571		0.1999	0.8077
1994	0.1049			0.5073	0.7558	0.9161	0.3796	1.1238	0.9398		0.9628	1.973	0.1121	0.8742
1995	0.0683				0.421	0.2844	0.2105	0.0338	0.4228			0.6046	0.1795	0.3298
1996	0.1114			0.0637			0.074	0.0271	0.0275	0	0		0.0484	0.0362
1997	0	0.3499	0.3858	0.2414	0.3813		0.1577	0.2407	0.2026		0.6775		0.2185	0.2924
1998	0	0	0		0.5677		0.1952	1.1293	0.585	0.0838		1.6174	0	0.5368
1999	0	0.1677	0.1871		0.3267	0.5617	0.1251	0.4025	0.1892		1.1973		0	0.3371
2000	0	0	0.0603				0.0659	0.5622	0.1545		0	0	0.012	0.1338
2001	0.0441	0	0.0144	0			0.0645	0.3568	0.4095	0	0		0.0173	0.1811
2002	0.5133	0	0.1371	0.0299	0.4665		0.2223	0.6261	0.7053	0.138	0.1977		0.1827	0.3877
2003	0.068	0	0	0.0426	0.052	0	0.0945	0.622	0.2536	0.1452	0.7751	0.8943	0.0501	0.2309
2004	0.8413	0	0.0559	0.1219	0.2039	0.4274	0.1572	0.5518	0.4597	0.1323	0.7536	1.4163	0.1788	0.3969
2005	0.1962	0.0601	0.0413	0.0608	0.3237	0.1027	0.2092	0.9728	0.4646	0.4909	1.5362	1.1111	0.0851	0.4357
2006	0.4054	0.0667	0.0643	0.1339	0.2566	0.2663	0.1815	0.9952	0.7289		1.4256	1.5012	0.0525	0.5317
2007	0.0979		0.4312		0.486	0.4999		0.59	0.6824				0	0.5254
2008	0.0716	0		0.1022	0.6305	0.189	0.0953			0.4984			0.0593	0.2441
2009	0.4007		0.102		0.1581		0.0893	0.9621			1.6325		0.0486	0.4731

Stock Identifiers:
AKS = ALASKA SPRING QUI = QUINSAM RBT = ROBERTSON CREEK SRH = SALMON RIVER HATCHERY
URB = COLUMBIA UPRIVER BRIGHT WSH = WILLAMETTE SPRING

Table J.6. NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

[illegible]	[illegible]	ER Stock Identifiers:			
1979	0.9655	Alaska Southeast	Age 4	Age 5	Age 6
1980	0.8036	Quinsam	Age 4	Age 5	
1981	1.2724	Robertson Creek	Age 3	Age 4	Age 5
1982	0.9585	Salmon River Hatchery	Age 4	Age 5	
1983	0.9794	Columbia Upriver Brights	Age 4	Age 5	
1984	0.8676	Willamette Spring Hatchery	Age 4	Age 5	
1985	0.8457				
1986	0.7264				
1987	0.7999				
1988	0.6734				
1989	0.7061				
1990	0.6425				
1991	0.6220				
1992	0.4798				
1993	0.5259				
1994	0.5772				
1995	0.2748				
1996	0.0000				
1997	0.2337				
1998	0.4036				
1999	0.2797				
2000	0.0942				
2001	0.0923				
2002	0.3065				
2003	0.2112				
2004	0.2897				
2005	0.3848				
2006	0.3687				
2007	0.3472				
2008	0.2178				
2009	0.3628				

Table J.7. Landed catch exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

1979				1.1117			1.1538	1.2608			1	1	0.9549	0.8269		1.1313	1.5645			1.3943	1.745	0.6998	1.2158	1.0247	1.0522
1980				0.5644	0.999		1.3798	1.4195					1.1835	1.4101				1.0911		1.3382	0.9392	1.3882	0.8622	1.1113	1.0804
1981	0.7941	0.715		1.1594	0.7568	0.8475	0.7014	0.5836	1				0.9517	0.6369	0.7182		0.4355			0.1999	0.8925	0.8456	0.8862	0.6266	0.8194
1982	1.2059	1.285	1	1.1646	1.2441	1.1525	0.765	0.7361		1			0.9099	1.1261	1.2818	0.8687		0.9089		1.0676	0.4233	1.0664	1.0358	1.2374	1.0476
1983	1.3748		1.4042	1.7096	1.6173	0.9619	0.3039	0.679	2.5003		0.9583		1.541	0.9395	1.6432	0.8862	1.4251			0.3966	0.4388	0.7057	1.0787	1.2739	1.1862
1984	1.3039	2.0896		2.2238	2.7617		1.2381	1.0459	1.6866			1.0865	1.4687	1.5799	1.6331	0.9656		0.3691		0.8824	1.3234	1.7538	0.7309	0.6889	1.4638
1985	0.8961		0.8449	1.2512	1.0842		0.6874	0					0.5426	0.9535	0.824	0.6569				0.7602	1.0252	0.8411	1.0503	0.439	0.869
1986	1.2801			1.297	1.1737	0.4705		0.5673					1.202	1.0029	0.9009	1.0728		0.1864		1.4706	0.7237	0.8517	1.2185		1.0631
1987	0.858			0.9636		1.4595	0.2735						0.4646		0.7598	0.5066	0.2666	0.2181		1.0043	0.7894	0.3726	0.4066		0.6343
1988	0.8427	0.4332		1.1604	1.3165	1.0574	0.4536	0.5726		0.6164			1.0092		0.3038	0.6857		0.6419		0.088	1.8926		0.7743	0.8561	0.8898
1989	0.5305	0.2548	0.4899	0.2907	0.5416	0.5664	0.1678	0.3407	0	0.2139	0.602		0.5917	0.3954	0.3517	0.3791	0.3392				0.8935			0.5373	0.4586
1990	0.7142	1.1033	0.9404	1.1817	0.3996	1.2131	0.6747	0.5577	1.535	0.4163	0.8598		0.9393	0.7245	0.7512	0.8161	0.7115	0.4329			1.6144			0.8256	0.8361
1991			0.9404	0.8172		0.7458	0.5998	0.5459	0.7351	0.2553	0.5705	1.0996	0.6024	0.6263	0.428	0.5252	0.9483	0.3562						0.0767	0.6907
1992	1.1488		0.4541	0.6673		0.3208	1.6102	2.4333	5.1136	1.0759	0.2663		0.4378	0.7413	0.745	0.7208	1.2648	2.6016						0.1673	0.8226
1993				1.1192	0.649		1.1771	2.2668	2.4465	1.1429	0.423		0.5471	0.9992	1.0557	0.5178	1.2136	1.1314		0.6215	1.9373			0.4296	0.8627
1994	0.1173					0.2242	0.6069	0.7332	1.3899	0.0872	0.7022		0.8408	0.6416	0.2228	0.4605		0.3847			0.9403			0.2493	0.5416
1995		0.2238				0.4326		0.4369	0.3652	0.1614	0.3886		0.3633	0.3508	0.281	0.2565	0.0365							0.1153	0.3242
1996	0	0	0	0			0			0	0		0		0	0	0	0		0	0			0	0
1997	0.3413		0.2194	0.7615			0	0.0621		0.035	0.2476		0.5064	0.4786	0.0354	0.2892	0	0.0362			0.1103			0	0.3296
1998								0			0.077		0.0456	0	0	0.0303	0	0		0.0152				0.0351	0.0306
1999		0.0482		0.0969					0		0.0735		0.0158		0.0204	0.0546	0	0			0			0	0.0481
2000			1.2248	0.0981	1.8539						1.1144		0.0464	0.765	0.0355	0.713	0	0		0.1183	0.5095			0.0759	0.7676
2001		0.7177	1.222	0.3093		0.7215	0			0.3706	0.3674		0.1468	0.6017	0.4524	0.5364	0	0.0544		0.063	0.1689			0.1758	0.501
2002	0.6101	0.1723	0.6763	0.3696	0.4927		0.016	0		0.279	0.4156		0.3	0.7562	0.4433	0.5568	0	0		0.0892	0.2115			0.335	0.4616
2003	0.5556	0.1159	0.74	0.3119	0.9253	0.1251	0	0			0.6016		0.3051	0.5949	0.3807	0.5658	0	0		0.176	0.1056			0.5869	0.4955
2004		0.0795	1.183	0.4179	1.0674	0.1247	0.0327	0.0209	0	0.1856	0.5464		0.3537	0.8037	0.3557	0.8264	0.1817	0.2539		0.1604	0.4907			2.1605	0.6336
2005	0.2976	0.7561	0.9693	0.7903	1.7899	0.1237	0	0		0.1193	0.8005		0.8884	1.1865	0.5802	0.764	0.1651	0.2323		0.1298	0.459			1.2419	0.8133
2006		0.2774	0.9363			0.4557	0	0	0	0.3888	0.7761		0.574	1.3926	0.5323	0.7247	0.1611	0.2833			0.7251			1.4293	0.7343
2007		1.0107	0.8177	0.8063				0.0185		1.273	0.5831		0.6181	0.9341	1.0227	0.6945		0			0.1352			0.2217	0.7101
2008		0.4129	0.3793	0.4536			0		0	0.661	0.3393		0.2076		0.4628	0.328	0.1862			0.2589				0.2066	0.3404
2009	0	0.4118	0.4633	0.2734	0.2305			0		0.2748	0.1477		0.1385	0.0509	0.3116	0.1669	0.0334	0.0281			0.0986			0.1611	0.1855

Stock Identifiers

CWF = COWLITZ FALL TULE
GAD = G ADAMS FALL FING
LRH = LOWER RIVER TULE
LRW = LEWIS RIVER WILD
RBT = ROBERTSON CREEK
SAM = SAMISH FALL FING
SPR = SPRING CREEK TULE
SPS = SO SOUND FALL FING
SRH = SALMON RIVER HATCHERY
SUM = COL RIVER SUMMERS
URB = COLUMBIA UPRIVER BRIGHT
UWA = U OF W FALL ACCEL
WSH = WILLAMETTE SPRING
CHI = CHILLAWACK

Table J.8. WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

YEAR	SPFI	ER Stock Identifiers:			
1979	1.0948	Alaska Southeast	Age 4	Age 5	Age 6
1980	1.1273	Quinsam	Age 4	Age 5	
1981	0.8666	Robertson Creek	Age 3	Age 4	Age 5
1982	0.9113	Salmon River Hatchery	Age 4	Age 5	
1983	1.0115	Columbia Upriver Brights	Age 4	Age 5	
1984	1.3843	Willamette Spring Hatchery	Age 4	Age 5	
1985	1.2172				
1986	0.8269				
1987	1.4084				
1988	1.7078				
1989	0.8160				
1990	1.1833				
1991	0.5934				
1992	1.6503				
1993	0.7391				
1994	0.5275				
1995	0.5948				
1996	0.0000				
1997	0.4131				
1998	0.0172				
1999	0.1793				
2000	0.7088				
2001	0.1776				
2002	0.2317				
2003	0.5692				
2004	0.4026				
2005	0.6248				
2006	0.4306				
2007	0.4002				
2008	0.3791				
2009	0.1239				

Table J.9. Total mortality exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

1979				1.0866			1.2335	1.2709			1	1	0.9389	0.8259		1.1327	1.5313			1.3921	1.7381	0.6843	1.2229	0.9749	1.0459
1980				0.5725	0.9903		1.3027	1.4066					1.1362	1.3864				1.1032		1.328	0.9442	1.3454	0.8633	1.0994	1.0629
1981	0.7872	0.7172		1.1421	0.749	0.8585	0.6831	0.582	1				0.907	0.6383	0.7493		0.4687			0.2483	0.8775	0.8158	0.8556	0.6477	0.8096
1982	1.2128	1.2828	1	1.1989	1.2607	1.1415	0.7806	0.7406		1			1.0179	1.1493	1.2507	0.8673		0.8968		1.0316	0.4402	1.1545	1.0583	1.2781	1.0726
1983	1.3582		1.4141	1.5558	1.5543	0.9636	0.3037	0.6669	2.5612		0.959		1.3696	0.898	1.5429	0.8946	1.2986			0.3467	0.4148	0.6685	1.0638	0.2785	1.1467
1984	1.2924	1.6812		2.0043	2.6529		1.1167	1.0251	1.7491			1.0753	1.2809	1.4742	1.4184	0.9507		0.378		0.8169	1.2675	1.5769	0.737	0.6406	1.3866
1985	0.9006		0.8218	1.1764	1.0513		0.6241	0					0.5211	0.8897	0.7319	0.6461				0.7172	0.9969	0.7628	1.014	0.427	0.8305
1986	1.2969			1.1132	1.0988	0.4641		0.5344					1.0954	0.9581	0.8207	1.0447		0.1782		1.3353	0.7123	0.7945	1.1943		1.0061
1987	0.8761			1.1429		1.4286	0.2706						0.4263		0.8441	0.5143	0.269	0.2432		1.102	0.8306	0.374	0.4048		0.6632
1988	0.9074	0.4749		1.2591	1.379	1.0698	0.4464	0.5731		0.6759			0.9332		0.373	0.7109		0.6662		0.4616	1.9585		0.7829	0.8628	0.9192
1989	0.5476	0.3528	0.4922	0.3131	0.5634	0.579	0.1704	0.3304	0	0.3367	0.605		0.59	0.3884	0.3795	0.3825	0.365				0.9313			0.5136	0.4682
1990	0.7488	1.0465	0.9346	1.1323	0.4365	1.2129	0.6538	0.5628	1.5941	0.4583	0.8542		0.8815	0.7183	0.8965	0.8332	0.7453	0.4515			1.6279			0.819	0.8409
1991			0.9619	0.7156		0.7555	0.5991	0.5509	0.7581	0.4075	0.5796	1.0879	0.5804	0.6201	0.5087	0.5332	0.9112	0.373						0.079	0.6831
1992	1.1501		0.4686	0.7339		0.3286	1.7741	2.4558	5.285	0.9119	0.2712		0.4803	0.7394	0.7408	0.721	1.3444	2.5807						0.2237	0.8299
1993				1.171	0.6996		1.4064	2.2912	2.5641	1.0933	0.4375		0.5687	0.9876	1.0533	0.5222	1.4258	1.173		0.877	1.9459			0.4191	0.8938
1994	0.1135					0.2384	0.6648	0.7582	1.4466	0.2381	0.7006		0.8102	0.6414	0.2331	0.4534		0.4007			0.9548			0.2484	0.5452
1995		0.2881				0.472		0.4572	0.4058	0.2404	0.4189		0.3783	0.371	0.3147	0.2723	0.0883							0.1328	0.3487
1996	0.0334	0.0675	0.0252	0			0.0322			0.0596	0.0154		0.0177		0.0627	0.0209	0.0531	0.0119		0	0.06			0.0264	0.0256
1997	0.3303		0.2234	0.8163			0.0045	0.0585		0.0957	0.2561		0.5428	0.5002	0.1304	0.2988	0.0156	0.0346			0.1043			0	0.3526
1998								0			0.0736		0.0377	0	0	0.029	0	0		0.0126				0.0289	0.0278
1999		0.0355		0.0802					0		0.0702		0.0131		0.0156	0.0522	0	0			0			0	0.0425
2000			1.195	0.0812	1.7838						1.0641		0.046	0.7138	0.0272	0.694	0	0		0.098	0.4817			0.0624	0.7074
2001		0.5374	1.2344	0.2596		0.6821	0			0.2861	0.3508		0.1247	0.5614	0.3553	0.5204	0	0.052		0.0608	0.1596			0.148	0.4573
2002	0.6083	0.1394	0.6549	0.3105	0.474		0.013	0		0.2078	0.4034		0.2535	0.7165	0.3518	0.5413	0	0		0.0739	0.2086			0.2837	0.4244
2003	0.5377	0.0852	0.7164	0.2654	0.8798	0.1245	0	0			0.5745		0.2582	0.5645	0.2972	0.5501	0	0		0.1458	0.0999			0.4922	0.4554
2004		0.0585	1.1534	0.3592	1.0172	0.1179	0.0264	0.0197	0	0.1382	0.5217		0.3	0.7635	0.2811	0.8036	0.1571	0.2465		0.1328	0.4639			1.8201	0.5795
2005	0.288	0.581	0.9455	0.6546	1.7017	0.1169	0	0		0.0888	0.7773		0.7513	1.1249	0.453	0.7395	0.1333	0.229		0.1075	0.4339			1.0454	0.7455
2006		0.2142	0.9139			0.4308	0	0	0	0.3108	0.741		0.4867	1.3413	0.4203	0.7025	0.13	0.2708			0.6855			1.2051	0.677
2007		0.7653	0.7959	0.6679				0.0174		0.9664	0.5664		0.5104	0.8716	0.7988	0.6756		0			0.1278			0.1825	0.642
2008		0.3127	0.3635	0.3757			0		0	0.5095	0.324		0.1746		0.3621	0.3134	0.1503			0.2287				0.1701	0.302
2009	0	0.3029	0.4528	0.2265	0.2158			0		0.2047	0.141		0.1144	0.0475	0.2504	0.162	0.0269	0.0269			0.0932			0.1326	0.1693

Stock Identifiers

CWF = COWLITZ FALL TULE
GAD = G ADAMS FALL FING
LRH = LOWER RIVER TULE
LRW = LEWIS RIVER WILD
RBT = ROBERTSON CREEK
SAM = SAMISH FALL FING
SPR = SPRING CREEK TULE
SPS = SO SOUND FALL FING
SRH = SALMON RIVER HATCHERY
SUM = COL RIVER SUMMERS
URB = COLUMBIA UPRIVER BRIGHT
UWA = U OF W FALL ACCEL
WSH = WILLAMETTE SPRING
CHI = CHILLAWACK

Table J.10. WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

YEAR	SPFI	ER Stock Identifiers:			
1979	1.0662	Alaska Southeast	Age 4	Age 5	Age 6
1980	1.1103	Quinsam	Age 4	Age 5	
1981	0.8885	Robertson Creek	Age 3	Age 4	Age 5
1982	0.9351	Salmon River Hatchery	Age 4	Age 5	
1983	0.9714	Columbia Upriver Brights	Age 4	Age 5	
1984	1.3057	Willamette Spring Hatchery	Age 4	Age 5	
1985	1.1293				
1986	0.7669				
1987	1.3694				
1988	1.6457				
1989	0.8935				
1990	1.1387				
1991	0.6054				
1992	1.5991				
1993	0.7151				
1994	0.5011				
1995	0.6527				
1996	0.0000				
1997	0.3871				
1998	0.0248				
1999	0.1590				
2000	0.6255				
2001	0.1571				
2002	0.2052				
2003	0.5033				
2004	0.3567				
2005	0.5524				
2006	0.3805				
2007	0.3530				
2008	0.3355				
2009	0.1092				

Appendix K Issues with ERA and model calibration

Issues with CWT Data

Alaska Spring

- As in previous years, the rack return, cost-recovery, personal use and stray recoveries for AKS were imported as auxiliary data.

Chilkat, Unuk and Taku Spring

- The escapement and stray recoveries for CHK, UNU and TAK were imported as auxiliary data.

Canadian Stocks

- As in previous years, the escapement, rack return and stray recoveries for ATN, ATS, BQR, CHE, CHI, COW, DOM, HAR, KLM, NAN, NIC, PPS, QUI, RBT and SHU were imported as auxiliary data.

Cowlitz Fall

- The 2008 escapement for CWF was imported as auxiliary data.

Elk River

- Corrections to the escapement recoveries from 1983 through 2006 and the terminal sport recoveries from 2000 through 2006 for ELK were imported as auxiliary data.

Lower River Hatchery

- Corrections to the escapement recoveries from 1979 through 1982 for LRH were imported as auxiliary data.

Lewis River Wild

- The 2008 escapement for LRW was imported as auxiliary data.

Lyons Ferry Hatchery

- Corrections to the escapement recoveries from 2002 through 2008 for LYF were imported as auxiliary data.

Queets Fall Fingerling

- Corrections to the escapement recoveries from 1981 through 1997, 2001, and 2004 through 2007 for QUE were imported as auxiliary data.

Spring Creek Hatchery

- Corrections to the escapement and terminal sport recoveries from 1974 through 1979 for SPR were imported as auxiliary data.

Salmon River Hatchery

- Corrections to the escapement and terminal sport recoveries from 1979 through 1987, 1993, 1995, 1998 and 2007 for SRH were imported as auxiliary data.

Stillaguamish Fall Fingerling

- Corrections to the escapement recoveries from 1999 through 2003 for STL were imported as auxiliary data.

Willamette Spring Hatchery

- Corrections to the escapement and terminal sport recoveries from 1978 through 2008 for WSH were imported as auxiliary data.

Changes from Previous Calibration Procedures

Changes to the Input Data for the Chinook Model calibration.

CNR File

SEAK Troll - SEAK Troll CNR data changes were due to stratifying the estimates by quadrant instead of the previously reported big six areas.

Years with SEAK July Inside Troll strata data changes:
1984, 1989-1997, 2007-2009

Years with SEAK July Outside Troll strata data changes:
1984, 1989-1997, 2007-2009

Years with SEAK Fall Troll strata data changes:
1990, 1992-1997, 2007-2009

SEAK Net - SEAK Net CNR changes were due to a new purse seine encounter estimator developed during the Total Mortality Workgroup investigations.

Years with SEAK Net CNR data changes:
1989-2004, 2007-2009

Forecast (FCS) File

Southeast Alaska Spring Escapement – The 1998-2009 data was changed because of updates to either the escapement estimate, age composition estimate, or the expansion factor by the project leaders.

The following changes were incorporated into the "SSEAK_ModelStkEsc_thru2010_RB.xls" spreadsheet:

Escapement time series in Escapements worksheet were all updated with correct escapements and expansion factors (John DerHovanisian: King Salmon River, Andrew Creek, Blossom, Keta; Red Weller: Unuk; Todd Johnson: Chickamin)

King Salmon River: The expansion factor was changed from 1.51876 (Excel was hiding digits) to 1.52 to reflect what is used in reports. Estimated the 2010 medium fish by multiplying the 83-92 and 98-09 average Med-Large ratio by the estimate of large fish. No ASL data in 2010 so the 2010 ASL was estimated using 83-92 and 98-09 average ASL. 2004 Med spawning grounds number updated to reflect ASL data since there was one more medium fish in reported ASL data.

Andrew Creek: The expansion factor changed from 1.954 to 1.95 to reflect what is used in reports.

Blossom River: An expansion factor of 3.87 was used. No ASL data in 2010 so it was estimated using average ASL from 98-09. The average med-large ratio from 98-09 was used to estimate the number of 2010 medium fish. The 2003 large and med spawning grounds numbers were updated to reflect ASL data since there were more fish in the reported ASL data.

Keta River: The expansion factor was changed from 3.0 to 3.01 to reflect what is used in reports. No ASL data was available in 2010. The average Med-large ratio from 98-09 was used to estimate the 2010 medium abundance. The average ASL from 98-09 was used for 2010.

Unuk River: The escapement time series was updated using an expansion factor of 4.83. The time period 2007-2010 had new Mark-Recapture data. The 1982, 1984-2010 average ASL was used for the years 1975-76. The 2003, 2007-2009 large and medium spawning ground numbers were updated. The 2007-2009 ASL data was updated.

Chickamin River: The escapement time series updated using an expansion factor of 4.75 to reflect what is used in reports. The 2004-2009 large and medium spawning ground numbers were updated. The 2004-2009 ASL data were updated.

Fraser Late Escapement – The 2011 age-specific escapement forecast for the Fraser Late stock using the usual method was not yet available when PSC Chinook Model Calibration #1106 was performed. Therefore a simpler logarithmic sibling forecast method developed by Chuck Parken was used to generate the 2011 FRL escapement forecast.

Nooksack/Samish Terminal Run – The terminal run estimates for NKS were updated from 1987 onward using a new run reconstruction method that includes freshwater sport.

Puget Sound Fingerling Terminal Run – The terminal run estimates for PSF were updated from 1987 onward using a new run reconstruction method that includes freshwater sport.

Puget Sound Natural Terminal Run – The terminal run estimates for PSN were updated from 1987 onward using a new run reconstruction method that includes freshwater sport.

Snohomish Summer/Fall Terminal Run – The terminal run estimates for SNO were updated from 1987 onward using a new run reconstruction method that includes freshwater sport.

Maturation and Adult Equivalent (MATAEQ DAT) File

Fraser Late Maturation Rates and AEQ Values – The age 3 and age 4 FRL maturation rates for incomplete broods were changed from the recent 5 year average to the long-term average so that the rates for FRL were consistent with those of the other stocks in the MATAEQ file. The resulted in new age 3 and age 4 adult equivalent values for the incomplete FRL broods as well.